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REORGANIZING THE
HIGH-SCHOOL CURRICULUM



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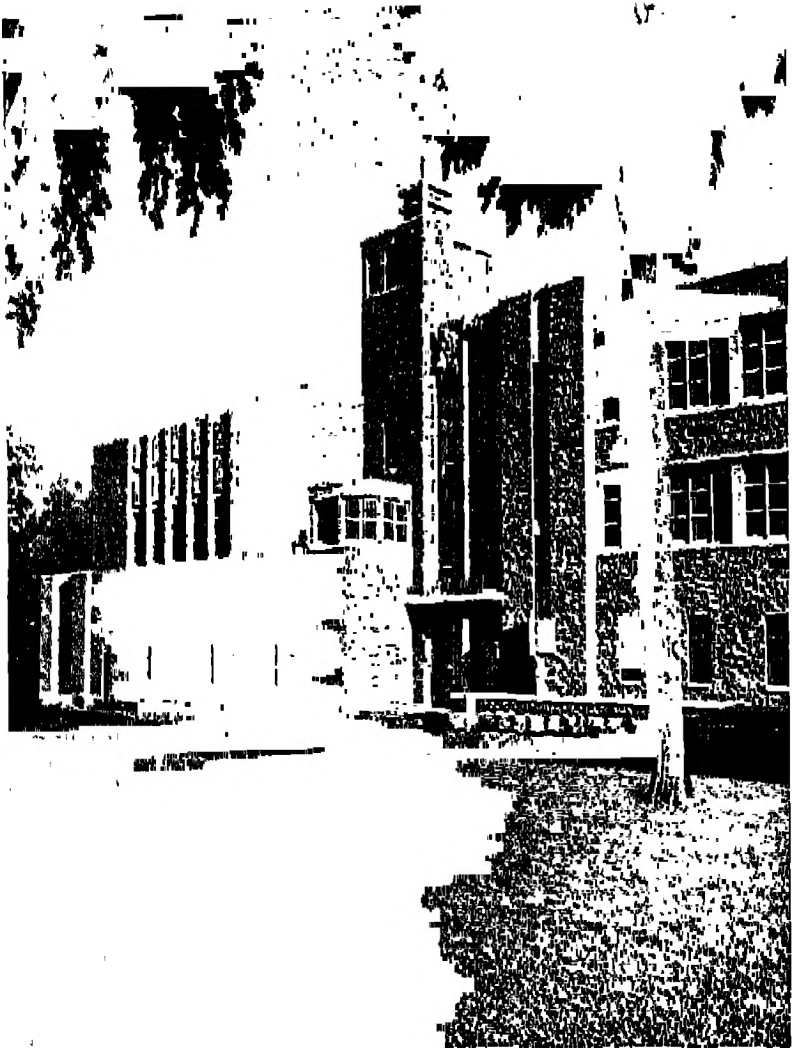


FIG. 1 The Boulder, Colo., High School. A Striking Example of Modern School-Building Architecture. *Courtesy Boulder Public Schools.*

REORGANIZING THE HIGH-SCHOOL CURRICULUM

by HAROLD ALBERTY

PROFESSOR OF EDUCATION
THE OHIO STATE UNIVERSITY

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PREFACE

THE AMERICAN HIGH SCHOOL IS POTENTIALLY ONE OF THE MOST significant agencies for interpreting, promoting, and refining the democratic way of life. Before World War II it enrolled seven out of ten of the boys and girls of the high-school age group. It was on the road to becoming the training ground for all American youth. While the war brought about a temporary decline in enrollment, due largely to the demand for workers, the period which lies ahead will undoubtedly witness a resumption and acceleration of the upward trend.

What is the American high school expected to do for these millions of young people? In the past the answer to the question has not been too clear. True, schools have always claimed to be concerned with democratic citizenship, but all too frequently the term has been vaguely defined, and the means that have been used bear little or no relationship to the projected goal.

In the postwar period, the high school is called upon to clarify its purposes and to provide appropriate tools for achieving them. In this task, there are many to advise. Some would return to the classical tradition—virtually turning their backs upon the present. Others would stress the teaching of the fundamentals, drawing heavily upon the lessons supposedly learned from the most devastating war in history. It is the task of the educator to sift these various claims and proposals, and to formulate clearly his purposes. This he can do only as he works cooperatively with teachers, students, and laymen.

But it is not enough to know the direction in which we wish to move. We must also provide the best possible means of arriving at our destination. In educational parlance, we must build a curriculum especially designed for the task which confronts the high school. If this means a clear break with tradition, we should accept it as an opportunity to provide a more effective program. Educators must have faith in the intelligence and willingness of the public to understand and accept changes.

This volume is designed to afford some help in the clarification of educational purposes and in the determination of appropriate learning activities. Since it is concerned with both purposes and the implementation of purposes, it may be regarded as having a bearing upon philosophy, curriculum, and methods. The author believes that there is an organic unity among these three concepts. They are all caught up in the learning activities which are carried on from day to day with students in the classroom, and in the organization and administration of the school. They may, of course, be separated for purposes of discussion, but it must not be forgotten that each is one aspect of the same unity.

Chapters I, II, and III deal with the need for rethinking the purposes and program of the school, with the development of a philosophy of high-school education, and with an analysis of adolescent development as a basis for curriculum reorganization.

Chapters IV through VII present a critical analysis of current curriculum practices, and the procedures which offer the most promise for improving the high-school curriculum. Emphasis is placed upon core-curriculum development which draws heavily upon both the subject and experience-centered approaches.

Chapters VIII, IX, X, and XI build upon the basic curriculum theory set forth in the previous section, and focus upon the problem of developing resource units as a means of helping the classroom teacher to improve the learning activities which he hopes will be effective in realizing his purposes. In this section particularly are philosophy, curriculum, and procedures developed as a unified whole. The section closes with an illustration of a resource unit which was developed by a group of

experienced teachers under the direction of the author. This unit is offered as a suggestion for bringing curriculum reorganization into the actual classroom situation, without destroying the initiative of teacher and students.

Chapters XII, XIII, and XIV treat more specialized aspects of curriculum reorganization. The discussion centers upon the work of the teacher in the classroom. The section deals with the problems which are involved in participation of students in curriculum planning, making learning activities the center of the guidance program, and dealing realistically and effectively with controversial issues. These problems are usually treated under the general heading of methods or procedures, but they are inseparable parts of the learning activities which the school provides for the purpose of changing the behavior of students. In short, they are segments of the curriculum.

The study closes with a chapter designed to give suggestions to groups of teachers who wish to improve the curriculums of their respective schools. These suggestions are very tentative and, of course, are not intended to set a pattern for curriculum reorganization.

The volume is addressed to the administrator, the teacher in service, and the student who is preparing to teach. All have a common problem—that of providing more effective learning experiences for young people.

The volume makes no claim to completeness or comprehensiveness. It is not a compendium of all current theory or practice. Rather, it states and implements a point of view toward high-school education, drawing upon the sources that seem to be appropriate to that task. In doing this, the author has tried to deal fairly with opposing theories and practices.

It would be impossible for the author to acknowledge specifically his indebtedness to all who have had a part in this enterprise. The cooperative work of scores of the author's graduate students over a period of many years has been used freely. Administrators and teachers in the field have given invaluable aid in providing concrete illustrations of theories, and photographs of actual classroom situations. The author expresses his deep

appreciation to his teachers and colleagues who have helped in clarifying his point of view, and over a long period of time have inspired him to try to make democracy live in the classroom. Among these are Boyd H. Bode, Max Otto, and V. T. Thayer. Finally, the author acknowledges his appreciation of the generosity of publishers who have granted permission to quote from copyrighted materials.

Harold Alberty

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REORGANIZING THE

HIGH-SCHOOL CURRICULUM

THE PRESENT STATUS OF HIGH-SCHOOL EDUCATION

A PERIOD OF RAPID SOCIAL AND ECONOMIC CHANGE IS BOUND to be accompanied by confusion and doubt about existing values, institutions, and practices. The inability of people to find satisfaction in accepted modes of behavior causes widespread questioning and searching examination. For some time now the American people have been faced with problems that strike at the very heart of some of our most cherished notions. World War II greatly accelerated the demand for action, and the post-war period with its clashes of conflicting ideologies and interests calls for fundamental readjustments. Most people are convinced that a better world must result from the colossal struggle, but the precise pattern of that world is yet to be worked out.

It is to be expected in such a crisis that the school would be one of the first institutions to feel the blast of criticism. Particularly is this true of the high school because it deals with a period of education that is closest to the actual tensions of society. Furthermore, the vast majority of youth complete their formal education in the high school. If they are to play their part in the bewildering social situation, that institution must prepare them for the task. The critics are well aware of the strategic situation of the high school and, as a consequence of their consciousness they are employing every possible means of influencing its future development.

THE INDICTMENT AGAINST
THE HIGH SCHOOL

At the outset of the discussion of the problems of secondary education it would, therefore, seem appropriate to examine briefly some of the more persistent and serious charges in the indictment and to point out some promising trends. Most of the points discussed will receive more extensive treatment later. The present purpose is to state sharply the issues and problems rather than to present solutions of them.

FREE UNIVERSAL HIGH-SCHOOL EDUCATION IS STILL FAR FROM BEING ATTAINED. One of the amazing phenomena of American life is the faith of the people in education. In no other country in the world are so many young people to be found in the high schools. Data gathered from various sources show that in 1890 there was only one high-school student to 312 persons of the general population, while by 1926 this ratio had shifted so that for each group of 31 persons, one student was to be found in the high school. In the decade from 1920 to 1930, the high-school enrollment increased about 100 per cent while the elementary enrollment increased but 10 per cent.¹ Before World War II it was estimated that out of a population of nearly ten million youth, ages fourteen to seventeen years, almost seven million were enrolled in high school. During the war, the effect of the rapid increase in the demand for workers was felt by the high school. Many youth dropped out of school to work, but with the return of peace there is every indication that high-school enrollments are resuming their upward trend.

On the surface, this rapid growth in the high-school population would appear to be most gratifying, but upon closer examination the situation is somewhat disturbing. All studies of the character of the secondary-school population indicate that it is

¹ See Roy O. Billett, *Provision for Individual Differences, Marking and Promotion*. National Survey of Secondary Education Bulletin, 1932, No. 17, Monograph No. 13, Washington, United States Government Printing Office, 1933, pp. 3-4. See also *Biennial Survey of Education, 1934-1936*. Bulletin No. 2, Washington, U. S. Office of Education, 1937, Vol. II, p. 19.

still a rather highly selected group. Youth of low mental ability usually do not get into the high school, and when they do, there is little likelihood that they will continue until graduation. One investigator² places the chances that a student of average or less intellectual ability, as measured by intelligence tests, will continue to the senior year as about one to twelve. This means that the student who is less able to meet the problems of life outside the school either does not get to the high school at all, or drops out in a short time. There are many people, including an articulate group of educators, who insist that this is as it should be. They claim that the presence of the low-ability student results inevitably in a lowering of standards.³ This group tends to ignore the fact that a fundamental reorganization of the curriculum to provide for all levels of ability would be a more satisfactory solution of the problem from the standpoint of democratic education.

Another selective factor in high-school attendance is the financial status of parents. When we consider the low annual income of large numbers of American families, it becomes evident that for many young people, high-school attendance is simply out of the question. Free education is really a myth, for it has been shown that the average cost of high-school attendance is about \$125 per year, contrary to the popular conception that it costs little or nothing to attend high school. This means that there is a serious economic barrier to high-school attendance

² *General Education in the American High School*. North-Central Association of Colleges and Secondary Schools. Chicago, Scott, Foresman and Company, 1942. In Chapter I, Harold Hand presents an excellent summary of several studies of the secondary school population. For those who wish to examine first-hand studies the following references are given:

George S. Counts, *The Selective Character of American Secondary Education*. Chicago, University of Chicago Press, 1922.

Grayson N. Kefauver, et al., *The Secondary School Population*. National Survey of Secondary Education Bulletin, 1932, No. 17, Monograph No. 4, Washington, U. S. Government Printing Office, 1933.

R. E. Eckert and T. O. Marshall, *When Youth Leave School*. New York, McGraw-Hill Book Company, Inc., 1938.

Howard Bell, *Youth Tell Their Story*. Washington, American Council on Education, 1938.

³ See George H. Henry, Can Your Child Really Read?, *Harper's Magazine* CXCI, 72-76 (January, 1946).

which effectively prevents students from the less favored groups from receiving the benefits of a high-school education. It can readily be seen then that we still have a long way to go before we can truthfully say that American education provides for the development of all youth up to the level of their capacities.

SECONDARY EDUCATION HAS NO CONSISTENT GUIDING PHILOSOPHY THAT GIVES UNITY AND DIRECTION TO THE PROGRAM. An examination of the literature of secondary education reveals that even in the area of educational theory there is much disagreement as to the purposes which the institution should serve. To some, the school should transmit the social heritage. To others, it should seek to improve the life of the community and reconstruct the ideals of the culture. To still others, it should be an instrument of the state for its own perpetuation. Others would make it largely a school for training in vocation. In practice, the situation is even more chaotic. There are many diverse and conflicting curriculum practices, even in the same school. Methods range from the daily-ground-to-be-covered procedure to long-range teacher-student planned assignments. School-community relationships are too frequently not developed in the light of any consistent pattern. During the war, activities were thrust upon the schools and were frequently carried through with little or no relationship to the total program. New subjects are introduced through the demands of pressure groups without much reference to other offerings. Many of these problems will be discussed later in this chapter. It is sufficient here to point out that schools are just beginning to sense the need for developing a philosophy.

THE CURRICULUM HAS NOT KEPT PACE WITH THE NEW DEMANDS MADE UPON IT BY CHANGED SOCIO-ECONOMIC CONDITIONS AND THE NEEDS OF ADOLESCENTS. It is a well-known fact that high-school offerings have increased enormously during the past few decades. Particularly is this true in the larger high schools. In 1890 the curriculum consisted largely of the so-called academic subjects. The

famous Committee of Ten (1893) recommended five separate curriculums that varied little from each other except that some required more units of ancient and modern languages and mathematics. Now the situation is quite different. Schools have expanded their offerings to include a wide range of "practical" subjects such as home economics, fine and industrial arts, music, and an impressive list of vocational subjects. The "academic" subjects have also undergone expansion. General language, general science, and general mathematics have become quite common. Courses in pre-flight aeronautics involving mathematics, science, and geography were very popular during the war, and are likely to continue for some time. Courses in psychology, conservation, and safety are also finding their way into the high-school curriculum. It should be pointed out, too, that there is a trend toward a unification of subjects. The favorite combination is English and social science, but in some of the more experimental schools, core or fused courses are to be found that utilize subject matter from practically all of the fields.

Textbooks which largely define the content of courses have been vastly improved. They are better organized—many in terms of units of instruction. They contain more reference materials from sources outside the textbooks. Illustrations are better and more profuse. Vocabulary studies have resulted in language simplification. Workbooks have been written to accompany many textbooks and these are widely used. Some teachers, particularly in the newer fields, have substituted a number of reference books and other library materials for textbook instruction.

Extra-curricular programs, which are regarded theoretically as a part of the curriculum, have been greatly popularized and extended. Athletic programs have flourished. School clubs of every conceivable nature, from the traditional subject clubs (e.g. science or French) to such activities as photography, air-plane-model building and the like, have sprung up in many schools. And most of these, with the exception of athletics, are more or less student planned and controlled.

In spite of these evidences of progress, the secondary-school curriculum has serious shortcomings. Some of these will be

pointed out briefly, leaving the more extended discussion for later chapters.

Many years ago, W. S. Learned ⁴ pointed out that the curriculum was "a rope of sand" and this is more or less true today. Graduation from high school consists in accumulating sixteen separate "units" without much interrelation or unity. New courses have been added without much study of their relationship to those already a part of the curriculum. Student progress is not cumulative in any intellectual or practical sense. Frequently the teachers in one area have little or no knowledge of what is being taught in other areas. The result so far as the student is concerned is frequently confusion, fragmentary knowledge, and inadequate mastery.⁵

The time-honored well-established academic fields representing accepted logical organizations of knowledge are still a very powerful influence in the curriculum and consume a large part of the student's time. Very frequently they crowd out the more practical subjects simply because they have greater prestige with parents, teachers, and particularly with the colleges. And present-day demands for "toughness," rigorous mental discipline, and the like, are tending to intrench these subjects even more deeply. True, vocational curriculums, often in specialized schools, abound; but the vocational education is frequently quite divorced from general culture and citizenship training. In many of the smaller schools, and some of the larger ones, the student must choose between classical or modern languages, and home economics or industrial arts. The absurdity of such a program is self-evident.

In spite of the more practical emphasis discussed above, schools have not, by and large, given much attention to personal living, including health education, face-to-face relationships of adolescents, or to the participation of the student in the socio-economic life of the community. The old issue as to whether the curriculum should be organized in terms of the problems, inter-

⁴ *The Quality of the Education Process in the United States and Europe*. New York, Carnegie Foundation for the Advancement of Teaching, 1927.

⁵ See Thomas Briggs, *The Great Investment*. Cambridge, Mass., Harvard University Press, 1930, pp. 117-143.

ests, and needs of students, or in terms of preparation for adult life is still a very live one.⁶ Present practice certainly indicates that the latter point of view is most common. Attempts to get the points of view together in a program have not been common. Perhaps the most prevalent assumption is that the formal curriculum is planned to meet the needs of adult life, and the extra-curriculum to meet the immediate needs of students. This conception goes far to block any attempt at basic curriculum reorganization and perpetuates a dualism that need never have developed. It should be pointed out, too, that the slavish following of the adopted textbook tends to "freeze" the curriculum and negate any attempt to secure unity between the curriculum and the extra-curriculum or to relate the curriculum to the particular problems and interests of youth that grow out of their day-to-day interactions with their fellows, and their relationships with the immediate and wider community.

Finally, it must be recognized that the above-mentioned trend toward securing greater unity through core, or fused courses is still only in its infancy. They represent such a violent break with tradition that schools are slow to experiment with them.

METHODS OF TEACHING ARE STILL DOMINATED BY TRADITIONAL PSYCHOLOGICAL AND EDUCATIONAL THEORY. In the first three decades of the century, there was a marked emphasis upon teaching methods. The Herbartian formal lesson plan was beginning to give way to various types of unit planning. The project method which started in the agricultural field was being applied to other subjects. H. L. Miller experimented with a method which utilized the various steps in the thinking process as stages of learning. H. C. Morrison developed a method known as the Morrison Plan that advocated comprehensive units of subject matter designed to bring

⁶ See V. T. Thayer, Carolinc Zachry, and Ruth Kotinsky, *Reorganizing Secondary Education*. New York, D. Appleton-Century Company, Inc., 1939. The authors attempt to interpret the concept of "needs" in such manner as to cover both the present interests and desires of students, and the demands of the adult world.

about new adaptations or understandings. The Dalton and Winnetka Plans were designed to break the lock step and permit students to progress at their own rates of learning. V. T. Thayer wrote a book optimistically called *The Passing of the Recitation*.⁷ Meanwhile, the activity movement, which provided for larger "units of work" or "centers of interest," had found considerable acceptance in the elementary-education field. All of these movements were directed against the daily-ground-to-be-covered recitation method, and were consistent with the new psychology of learning which was being developed.

Up-to-date statistics bearing upon the use of these various plans are not available. In 1933 not one of them was used by more than ten per cent of the large number of schools studied. It is doubtful that the situation is much different at the present time. Daily assigned lessons from textbooks is without a doubt the most common practice in the high schools today. Particularly is this true in the so-called academic fields. The fact that this method has long been repudiated by psychologists and educators seems to have little effect upon actual classroom practice. The daily assignment technique has the advantage of definiteness and is admirably adapted to the conception of education that prizes the acquisition of knowledge as the chief end. The recitation period provides an easy and obvious way of determining whether or not the student has completed the assigned tasks. However, it is contrary to the modern psychology of learning, and does not facilitate the acquisition of such learning products as thinking, creativeness, initiative, and self-direction, which are significant in a democracy.

EVALUATION PROGRAMS FAIL TO STRESS THE MOST IMPORTANT LEARNING PRODUCTS. It has long been known that the values which are actually tested are the determining factors in curricular planning and learning. Traditionally, testing has been largely confined to the determination of facts memorized or skills mastered, rather than being defined in terms

⁷ Boston, D. C. Heath Company, 1928. See Chapter VIII for a discussion of some of these plans.

of democratic values and attitudes. Nor did the scientific testing movement change this situation to any great extent, for in this field the emphasis has been placed upon standard norms that assume that large numbers of students have been exposed to the same subject matter, to the same specific facts to be mastered. If the curriculum is changed materially, the tests are no longer appropriate, consequently the tendency is to continue teaching the same subject matter and to stress the same objectives. State scholarship testing programs have also accented this trend. It may safely be stated that most present-day testing programs stress the acquisition of facts and information with only superficial attempts to get at the most intangible but significant values. This is because facts and information lend themselves to objective treatment to a greater extent than do values.

Fortunately, under the impetus of the progressive movement, successful attempts have been made to devise evaluation instruments that are to test such values as reflective thinking, consistency of belief, ability to cooperate, social sensitivity, and the extension of worthy interests.^a These tests have not, however, found their way into general use in the high school.

SCHOOL BUILDINGS AND EQUIPMENT ARE POORLY ADAPTED TO THE CHANGING PURPOSES OF THE HIGH SCHOOL. Even the casual observer cannot fail to note that there has been a vast improvement in school-building design. Under the stimulation of the scientific study of the efficiency of buildings, school architects have given much more attention in recent years to satisfactory lighting and heating, to the most efficient beam spans, width of corridors, number and location of lavatories. The battle to include gymnasiums and auditoriums has been won, and the inclusion of studios and shops, while regarded as frills in some quarters, is really a commonplace. Even the external appearance of school buildings has been vastly improved, for while most buildings are still box-like structures without much claim to aesthetic values, they are at least free

^a For example see Eugene R. Smith and Ralph Tyler, et al., *Appraising and Recording Student Progress*, New York, Harper and Brothers, 1942.

from the "gingerbread" effect of an earlier day. At least one can say that they are not offensive. One may travel through hundreds of towns and cities and find school buildings that are as a rule far above the average of efficiency and appearance to be found in other buildings of the community, including residences. In many communities the public school building is the only modern building to be found. It is true that one has to apply the criterion: "good for the locality." But with all these material improvements, it must be said that we are only beginning to understand the meaning of "functional design."⁹

School buildings actually built to facilitate an ongoing, dynamic philosophy of education are such a rarity as to make one question the functional value of a philosophy of education. The school architect who has any sense of the actual possibilities of building construction as a means of promoting the idea that the school has a distinctive role to perform in transforming the life of the community is very difficult, if not impossible, to locate. And it is easy to find teachers' colleges that conduct building surveys without any regard whatever for the educational program which is, or ought to be, carried on in the proposed building.

Equipment and interior decoration have also been vastly improved. Much more care has been given in recent years to the selection of school furniture to facilitate good posture and provide for satisfactory illumination. Excellent reproductions of good paintings have found a place on many schoolroom walls. Well-equipped science laboratories, shops, and studios, designed to provide first-hand experiences have made their appearance in many high-school buildings. Sound systems and visual aids have come into fairly common use, especially in city school systems.

Yet in this field only beginnings have been made. It is still common practice to decorate all rooms exactly alike, to have seating equipment fastened rigidly to the floor, to plan laboratories as if all pupils were expected to be working on exactly the same project at the same time. Corridors are still cluttered up

⁹The Crow Island School of Winnetka, Illinois, is a good illustration of functional design. See also frontispiece of this volume. Boulder, Colorado, High School building is an outstanding example of good modern design.

with unsightly, noisy lockers, and ugly plaster casts. Rooms especially equipped for leisure-time and social activities of teachers and students are conspicuous by their absence. Laboratories, shops, studios, and classrooms are usually not equipped to invite the exploration of individual interests and abilities. The possibilities of arranging school furniture in such a way as to facilitate cooperation among pupils are not developed to any great extent. Provision is seldom made for periodic repainting of murals by students. Exhibit cases for athletic trophies are far more prominent than are appropriate places for exhibiting the arts and crafts work of the students, or completed projects in other fields. Draperies are occasionally to be found in principals' offices but are usually considered to be unnecessary for classrooms and laboratories. Why all these deficiencies? Is it because of lack of funds? Usually this is not the answer. Rather, the answer is to be found in a lack of a controlling, consistent, and unified philosophy of education. Generally speaking, school equipment is not seen as a means of facilitating the way of life which we call democratic.

SECONDARY-SCHOOL TEACHERS ARE COMPLACENT AND SELF-SATISFIED. Most teachers are products of the academic tradition which holds that the cultural heritage transmitted in the form of textbooks to be studied and mastered will transfer readily to life situations. They have been taught this in college, and their meager professional training has done little to change their beliefs. All through college they are subjected to logically organized systems of knowledge taught by subject-matter specialists. For the student, academic success was defined as mastery of these materials.

On the whole, the teacher has found that the high school in which he teaches is congenial to the perpetuation of the same values which he learned to cherish in college. When he enters the classroom, he finds a fixed course of study, perhaps prescribing the ground to be covered each semester, and a textbook containing the subject matter to be taught. It is easy to transfer his college experience to this new situation. He cannot be

blamed for doing so. Gradually he develops a deep sense of security through teaching the same cut-and-dried materials year after year. The students don't object. The community is satisfied. Why should he change? In such a climate it is easy to be complacent and self-satisfied, and even to build up barriers to prevent change.

The experience gained from the *Eight-Year Study*¹⁰ tends to support this point. One of the obstacles to the utilization of the freedom granted by the colleges was the traditional attitudes of teachers. Heretofore, they had rationalized their failure to meet the needs of youth by claims that the college-entrance requirements straitjacketed them. Released from such requirements, they had neither the will to change nor the understanding of what should be done. In some schools, small groups of teachers were found who had an honest desire to launch out on uncharted seas. New programs were instituted which embraced only a small segment of the students and the more progressively minded teachers, simply because all teachers were not interested. Often these programs were defeated by the large body of conservatively minded teachers who not only had no desire to participate in the program, but also saw in it a threat to their own security. It is gratifying to note, however, that in some schools the entire program was transformed during the eight-year period of the study. This required aggressive democratic leadership and an understanding of the methods of successful in-service training.

There are some promising signs that a new day is dawning. During the past few years, thousands of teachers have given up their summer vacations to attend workshops for the purpose of working directly on their problems. In some cases, boards of education have financed large groups of teachers for summer work. These teachers have worked together on the development of resource units, formulation of philosophy, studies of adoles-

¹⁰ See Wilford Aikin, *The Story of the Eight-Year Study*; and H. H. Giles, S. P. McCutchen, and A. N. Zechiel, *Exploring the Curriculum*. New York, Harper and Brothers, 1941. Similar experience is also reported by Paul Pierce in *Developing a High-School Curriculum*. New York, The American Book Company, 1942.

cent development, programs of evaluation, and the like, and have gone back into their schools to do a better job of teaching. Increasingly, too, administrators are beginning to recognize that their job is mainly concerned with professional growth rather than attending to the details of administration. They have instituted professional study programs instead of the traditional teachers' meetings given over to announcements. Conventional classroom visitation has given way to programs of curriculum reorganization, philosophical study, development of new evaluation techniques, and the like. In such a stimulating environment, complacency and self-satisfaction are likely to be superseded by a desire to improve the program.

HIGH-SCHOOL STUDENTS SHOW A SURPRISING LACK OF DESIRE TO PURSUE NEW CURRICULUMS AND METHODS OF WORK THAT CALL FOR THE USE OF INITIATIVE, ORIGINALITY, AND THE ABILITY TO PLAN THEIR WORK. They, too, have found security in the daily ground-to-be-covered assignments from textbooks and in a testing program that places a premium on the memorization of facts and information. Even in extra-curricular activity programs in which students have had abundant opportunity to live in a truly democratic atmosphere, all too frequently active participation is limited to a relatively small percentage of the student group.¹¹ One needs only to ask a group of college freshmen to express their opinions of their high schools to discover that most of them have been completely satisfied with their program. At best, their criticisms are superficial and lacking in fundamental insight into ways in which the school might have helped them to meet their needs. One reason for this condition is to be found in the fact that, in spite of what has been said about the democratic character of our high schools, they still remain highly selective institutions. Their graduates are largely made up of the students of professional and business groups that occupy a relatively high position on the economic scale. Students from less

¹¹ *Ibid.* Chapter III is a dramatic account of how Wells High School in Chicago dealt with the problem of inertia of high-school youth in club activities.

avored economic groups tend to drop out early and consequently are not present to testify as to the inadequacy of their high-school experience.¹² Since the high-school programs have been largely shaped by the colleges, it is not surprising to find that those students who survive and go on to college are fairly well adjusted and have only minor criticisms to make of their school experience.

Fortunately, there is a brighter side, for evidence at hand tends to show that when once high-school students become accustomed to a more dynamic type of education, they readily assume responsibility for helping to plan and carry out their own programs.¹³ Students have demonstrated that they can participate effectively in community health and recreation programs and in the general improvement of community life.¹⁴ Under the guidance of an enthusiastic teacher students soon discover that the security of imposed subject matter is purchased at too high a price.

PARENTS AND COMMUNITY LEADERS IN GENERAL ARE NOT A DOMINANT FORCE IN EDUCATIONAL REFORMATION. The introduction of so-called activity programs have frequently been opposed by parents because of the fear that the "fundamentals" will be neglected. Parents do not see the school as the community's principal agency for promoting and refining the way of life that we call democratic, but rather as a supplementary agency charged with responsibility for imparting the cultural heritage and perpetuating the status quo. Even though the parents of children enrolled in progressive schools frequently are a more or less selected group, such schools

¹² The National Youth Administration program did much to make it possible for youth to remain in school, but the high schools can scarcely claim credit for an organization that was to a large extent forced upon them.

¹³ See *Were We Guinea Pigs?* New York, Henry Holt and Company, 1938. This book was written by a senior class of The Ohio State University School. And *Learning the Ways of Democracy*. Washington, Educational Policies Commission, 1940.

¹⁴ See, Paul Hanna, *Youth Serves the Community*. New York, D. Appleton-Century Company, Inc., 1936. And James Tippet, *Schools for a Growing Democracy*. Boston, Ginn and Company, 1936.

are called upon to spend an undue proportion of time and energy in "selling" the program. There is constant fear that Mary will not be adequately prepared for college if there is any significant departure from traditional offerings.¹⁵ That some of the difficulty is due to the fact that parents have not participated in any vital way in planning the school program is not to be denied. At least one of the schools of the Eight-Year Study that had instituted a new program at the outset was forced by parental pressure to revert to the old, because parents did not understand what the school was trying to do. But all of the difficulty cannot be ascribed to this failure of the school to take the public into its confidence. Much of it is due to downright opposition aided and abetted by pressure groups that have an interest in perpetuating the status quo, and which consequently do not wish to see the schools deal with problems which might seriously call into question existing economic ideologies and practices. Witness the widespread opposition to social-science textbooks that tend to develop a critical attitude on the part of students toward the economic, social, and political problems of American life.

It must be pointed out, however, that there is ample evidence that parental and community opposition to change can be transformed into a dynamic force for improvement. In many communities, councils have been organized that bring together the important groups that are interested in the general welfare of the community. Here the school plays a significant role. Under the general direction of the council, high-school youngsters participate in community surveys, clean-up campaigns, drives of various sorts, community beautification, and the like. Some communities have developed cooperative canneries, gar-

¹⁵ The results of the Eight-Year Study should do much to give parents confidence in the newer educational practices, for it indicates clearly that significant departures may be made in curriculums without impairing the chances of college success. See Dean Chamberlin, et al. *Did They Succeed in College?* New York, Harper and Brothers, 1942. See also, Roland C. Faunce, *Some Went to College*, a follow-up study of the College Records of 382 graduates of Michigan High Schools. Lansing, Michigan Study of the Secondary School Curriculum, State Board of Education, 1945.

dens, cold storage plants, machine shops, and a host of other enterprises in cooperation with the school.¹⁰ These things tend to break down the traditional dualism between the school and life outside and parents come to see that the role of the school involves far more than the teaching of "fundamentals."

SCHOOL ADMINISTRATORS HAVE NOT BEEN PARTICULARLY ZEALOUS FOR FUNDAMENTAL EDUCATIONAL ADVANCEMENT. In many cases, administrators tend to reflect the standards and values held by powerful interests in the community. Here again the very deep human urge toward security enters in. The school administrator usually bears the brunt of public criticism of school policies, and the fear of losing his job is a powerful factor in maintaining "things as they are." If the school is a smoothly running machine relatively free from public criticism, it can hardly be expected that the administrator will deliberately advocate the introduction of changes that might endanger his position in the community. As a result, he either fosters a policy of drift, or deliberately places himself on the side of the powerful interests that all too frequently are not interested in significant advancement. Fortunately, some school administrators are beginning to perceive that under the appropriate type of organization they may share the responsibility of instituting desirable changes with the teaching staff, the students, and the community at large. Fears and inhibitions tend to be broken down when school administration becomes an agency for facilitating and carrying into effect group plans and programs.

TEACHER-EDUCATION INSTITUTIONS TEND TO BE CONSERVATIVE. Naturally, we would expect teacher-education agencies to be centers for the development of new theories and practices. It has already been pointed out that at least part of the difficulty with changing teachers' attitudes is due to their training. An examination of the program of institutions for

¹⁰ See Elsie Clapp, *Community Schools in Action. And General Education in the American High School*. Chicago, Scott, Foresman and Company, 1942. Chapter VIII, by Samuel Everett is particularly illuminating.

the training of high-school teachers indicates that they are highly conventional. Usually the traditional separation between subject matter and method is to be found. Methods courses are frequently highly compartmentalized in terms of one aspect of a field. This successfully prevents any widespread deviation from existing practices in the high schools. Each subject is compartmentalized and taught by a specialist in that field. There has been little attempt to make the problems actually faced by schools and communities the center of the program. Actual school problems are given a minor emphasis in the rush to impart logical systems of knowledge. Accomplishment is in the form of courses taken and credits earned. Even the movement toward the unification of subject matter which has found rather general acceptance in elementary teacher-education circles has scarcely influenced high-school teacher education. It is difficult to find courses for high-school teachers that give adequate assistance in preparing to teach core or fused courses.

Under the impetus of the work of the Commission on the Relation of School and College of the Progressive Education Association, studies have been initiated in dozens of states and cities which have for their purpose a more vitalized program. Noteworthy among these are the Southern Association Study which involves many schools, and the Michigan and California Studies. Colleges have willingly cooperated with such studies by admitting students without the usual entrance requirements. Evidence tends to show that their confidence has not been misplaced and that students admitted under these special dispensations have demonstrated ability to do successful college work.

Under the sponsorship of the American Council on Education, *The Commission on Teacher Education* carried on similar studies of programs of teacher education and already significant results are being secured.¹⁷

¹⁷ See Arthur J. Klein, et al., *Adventures in the Reconstruction of Education*. Columbus, The Ohio State University, College of Education, 1941. The Commission has published its findings in a series of volumes of which the following are most significant: *Teachers for Our Times*, a Statement by the Commission on Teacher Education, 1944. Charles E. Prall and C. Leslie Cushman, *Teacher Education in Service*, 1944. W. Earl Armstrong, Ernest V. Hollis, and Helen E. Davis, *The College and Teacher Education*, 1944. Staff of the Division on

THE HIGH SCHOOLS ARE STILL DOMINATED TO AN UNDUE EXTENT BY COLLEGE-ENTRANCE REQUIREMENTS. Since the traditional purposes of the high school centered around college preparation, it was to be expected that the high school would be greatly influenced by the demands of the colleges. The work of the Committee of Ten (1893) is a typical example of such influence. With the extension of the high-school program to include more and more of the youth population, college attendance ceased to be the aim of a large majority of students. At the present time, such preparation has become a subordinate role in the average high school. Yet the program continues to be greatly influenced by college-entrance requirements. The group of educators who instituted the *Eight-Year Study* felt that the influence was sufficiently potent to justify a carefully controlled experiment to determine whether or not students could depart widely from conventional preparation, and still succeed in college. The results of that experiment have now been published.¹⁸ They indicate that the graduates of the experimental schools did slightly better than graduates of conventional schools who had equal mental ability and similar socioeconomic backgrounds. Plans are now underway to attempt to secure significant modifications¹⁹ in college-entrance requirements. Already they have succeeded to some extent. It will be a long time, however, before the more conservative colleges will even listen to proposals for change.

The influence of the college is not, however, merely a matter of imposition of requirements. It goes much deeper than that. The colleges enjoy enormous prestige. They are the symbols of the time-honored tradition of culture and scholarship. Their pattern of education has the respect of masses of people. Many

Child Development and Teacher Personnel, *Helping Teachers Understand Children*, 1945. These volumes are published by the American Council on Education. See also, *Better Schools, Better Teachers*. Committee on the Preparation of High-School Teachers, Ann Arbor, The North-Central Association of Colleges and Secondary Schools, 1944.

¹⁸ Dean Chamberlin, et al., *op. cit.* Compare with Roland C. Faunce, *op. cit.*

¹⁹ See Wilford Aikin, *op. cit.*; see Chapter VI for the Commission's recommendation for college-entrance requirements.

parents, therefore, expect the high school to provide a similar kind of education for their children, whether or not they intend to go to college. Latin has persisted in high-school curriculum even though the majority of colleges no longer require it for entrance. It has survived largely because it is a respected aspect of the classical tradition which the arts college has conserved and interpreted. Many parents want their children to study Latin because of a respect for this tradition.

But the college is changing. It, too, is beginning to be concerned with a re-examination of its role in the modern world. And with these changes, they are placing values upon practices in the high school that only a few years ago were frowned upon. For example, general science, general mathematics, and general language courses in high school are closely related in aim to the orientation programs which many colleges have introduced. Not many years ago these subjects were regarded as unacceptable for college entrance.

All evidence points to the fact that the high school should base its program upon the needs, interests, and problems of youth in the modern world. Students adequately prepared for life will undoubtedly succeed in college. Some colleges are beginning to realize this, and are liberalizing their entrance requirements.

A rapid survey of the broad field of high-school education has now been completed. Deliberately the writer has tried to make some of the weaknesses stand out prominently. Perhaps the attempt has been too successful. It may appear that the high school is a decadent institution and should therefore be supplanted by a new type of school which is free from the traditions that prevent change. No such conclusion is intended. Over against each criticism, a promising trend was pointed out. Once teachers become convinced that reorganization is needed, these trends may be expected to develop rapidly. The following statement of trends is designed to summarize the chapter, and to point up desirable changes that are already evident in school practice.

SOME DISCERNIBLE TRENDS
IN HIGH-SCHOOL EDUCATION

FROM:

1. The high school as a highly selective institution designed to provide only for the intellectually elite.
2. Opportunism, drift, and pressures as bases for determining the program.
3. A subject-centered curriculum firmly rooted in traditional values and subject matter.
4. The daily ground-to-be-covered assignment - recitation procedure imposed upon the student.
5. Tests and examinations that stress facts, information, and specific skills.
6. School buildings and equipment determined by tradition and a limited concept of efficiency.

TO:

1. A high school that provides vital education for all normal youth up to the limits of their capacities.
2. A dynamic consistent philosophy that plays a distinctive role in a determination of policies and programs.
3. An experience curriculum based upon the needs, interests, abilities of adolescents in our democratic society.
4. Broad comprehension units of work planned cooperatively by teachers and students.
5. An evaluation program that emphasizes thinking, cooperativeness, social sensitivity, creativeness, appreciation, and self-direction.
6. Buildings and equipment designed in view of the role of the school in the life of the youth and the community.

FROM:

7. From complacent self-satisfied teachers fearful of disturbing their sense of security.

8. Docile students who are willing to accept the tasks imposed upon them as the easiest way out.

9. Administrators who are fearful of change, and who devote their energies to the maintenance of "a smoothly running machine."

10. Teacher education that perpetuates the academic tradition, and prepares teachers to transmit the social heritage.

11. A program dominated by the demands of the colleges.

TO:

7. Wide awake progressive teachers, interested in improving the life of the school and community.

8. Students who assume responsibility for participating in the planning of the work and in evaluating its outcomes.

9. Administrators who are primarily educational leaders who devote their energies to the improvement of learning in the school.

10. Teacher education that applies the principles of modern psychology and education in its program; and prepares teachers to play a dynamic role in the reconstruction of the social order.

11. A program determined by the needs of students in present-day living.

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PART I

THE FOUNDATIONS OF CURRICULUM REORGANIZATION

THE AMERICAN HIGH SCHOOL: ITS PHILOSOPHY AND PURPOSES

THE MEANING OF PHILOSOPHY

IT HAS OFTEN BEEN SAID THAT EVERY INDIVIDUAL HAS A PHILOSOPHY, but if by that is meant a consistent, unified set of values or preferences which give meaning to action, we would be forced to admit that the statement is only a half-truth. On all sides we see human action that obviously is based upon trial and error, caprice, or a blind following of tradition, and hence does not have either the quality of unity or consistency. On the other hand, it is probably true that every individual does have certain preferences, certain things that are more highly prized, certain desires that are warmer, more dynamic than others to which he gives allegiance and which somehow form a rough pattern for living. For want of a better name, we may call this pattern his outlook, or philosophy. It is a far cry, of course, from the chaotic values that characterize the philosophy of the average individual to the aspiration of the philosopher to "comprehend the universe, not simply piecemeal or by fragments, but somehow as a whole." But, fundamentally, the basic idea is the same for the professional philosopher and the so-called "common man." Philosophy involves the cultivation of a set of values which serves as a guide to conduct.

Thus, when we speak of the philosophy of a school we refer to the purposes that give direction to the activities which it sponsors, to the beliefs which the teaching staff holds concerning

the development of human personality, to its conception of the nature of the good life in our society. From this point of view, we can readily see that some schools, like individuals, may possess a hodgepodge of conflicting, confused values that lead consciously in no particular direction. Others may be very certain of the goals toward which they are moving, even though such goals might not be accepted as valid by many educators. Still others may be found that are consciously setting goals that are consistent with our democratic tradition.

THE SEARCH FOR A PHILOSOPHY OF EDUCATION

It is only in the past two or three decades that school administrators and teachers have become concerned about a philosophy of education which would define the goals of the educative process in any clear-cut fashion. To be sure, the school was to "train for citizenship," to "impart culture," to "prepare for life," but these were vague terms that did not give much direction to the program.

FORMAL DISCIPLINE. Up to the turn of the century, the dominating psychological doctrine maintained that education consisted mainly in the training of the faculties of the mind. What subject matter was best for developing the faculty of reasoning? How best train the memory? How teach the student to observe carefully? These were the sorts of problems debated by educators. The Committee of Ten (1893) held that all subjects *if properly taught* would yield the same values, thereby opening the way for an extension of the curriculum beyond the classics and mathematics. Even though all subjects made contributions to the training of these faculties, certain facts and information were considered more useful in life situations. Consequently, subject matter ought to be selected that would be useful in life as well as in disciplining the mind. Even though it was necessary to apply these two criteria to the selection of subject matter, no central directing philosophy was needed.

THE DOCTRINE OF SPECIFIC OBJECTIVES. When experiments proved rather conclusively that faculties as such did not exist, the emphasis shifted to specific training. This movement was aided and abetted by the newer theories of learning which held that all learning was specific and a matter of establishing the appropriate bonds in the nervous system by means of drill. These theories aided enormously in popularizing such subjects as the practical arts and commercial education, as well as science, music, art, agriculture, and physical education. This movement did not, however, emphasize a general frame of reference, a social philosophy to any great extent, but rather stressed specific objectives for each subject, and special methods of teaching in order to achieve the specific objectives. Obviously, this analysis of educational subjects into smaller and smaller elements could not go on forever. In 1918 the famous "Cardinal Principles of Secondary Education" were formulated by the Commission on the Reorganization of Secondary Education (1912-1920). Through these principles, educators sought to unify the secondary-school program by insisting that it was the job of the school to prepare for the business of daily living, which in a general way was defined as "social efficiency." The "objectives," which amounted to little more than classifications of activities, were as follows: (1) health, (2) command of fundamental processes, (3) worthy home membership, (4) worthy use of leisure, (5) vocation, (6) citizenship, and (7) ethical character. Most school curriculums in the Twenties and early Thirties made specific references to these objectives, and it was common to think of every subject as being valuable to the extent that it contributed to one or more of these "cardinal principles." As a matter of fact, while it would not be fair to say that this formulation was the first attempt¹ to give unity to the secondary-school program through some sort of philosophy, to this commission must be credited the beginnings and popularization of the present-day acceptance of the need for a consistent and unified philosophy for the guidance of administration, curriculum making, methods, and evaluation.

¹ Many years earlier Herbert Spencer made an analysis of "complete living," which is not strikingly different from the seven "cardinal principles."

THE EXPERIMENTALISTS. It remained, however, for the educational philosophers to give meaning and significance to this new trend in educational thinking, and we are deeply indebted to John Dewey for persistent efforts over half a century to drive home the necessity for a clarification of thinking about educational values. His *Democracy and Education* published in 1916 was widely discussed and to some extent his ideas were incorporated in the school program, particularly on the elementary level. Other pioneers in the field were B. H. Bode,² William H. Kilpatrick, and a large group who were known as pragmatists, instrumentalists, or experimentalists.

CONFLICTING VALUES IN AMERICAN LIFE

No survey of backgrounds of a modern philosophy of secondary education, however brief and sketchy, would be complete or even intelligible without reference to the profound changes in American life which have shaken at their very foundations our time-honored ways of thinking and acting. It is trite to point out that our democratic culture is confused in its values, and is becoming more and more confused as we face the period of reconversion following the war. We are certain that we want to preserve democracy, but quite uncertain as to what its basic values are. We want to maintain our system of "free enterprise," but at the same time we recognize the need for strict governmental control. We want to maintain freedom of speech, but at the same time we recognize the danger of the disunity that comes from the irresponsible expression of ideas. We want to retain and strengthen local government, yet we recognize the need for centralized power. We want to provide a deep sense of security for all our people, yet we want to guard against complacency. We exalt the "intelligence of the common man," yet we are suspicious of his ability to solve his problems in a complex interdependent society. We reject traditional standards of morality, but are very uncertain as to what should replace them

² For an appraisal of Bode's contribution, see H. Gordon Hullfish, *Philosophy and Education in Interaction*. A paper presented at the Conference on Democracy and Education, Columbus, The Ohio State University, 1944.

as guides to conduct. We want the benefits of technological development, but we do not know how to distribute them widely without destroying other values which we cherish. We want to retain our sovereignty as a nation, but at the same time we are afraid of the consequences of permitting other nations to do so.

We want the freedom which comes from regarding every individual as having worth *per se*, but we also want the efficiency which seems to result from regarding every human being as a cog in a machine. We want to maintain continuity with the past by preserving its culture, but we want also to develop a culture indigenous to our soil. We want young people to have work experience, but we fear its effect upon capital and labor relations. These are but a few of the confusions and conflicts of American life in our time which make it imperative that the schools rethink the whole problem of basic values and ideals. And it is this significant fact that has led educators to stress the need for a social outlook. During the past decade, such writers as George Counts, Harold Rugg, John Childs, as well as the group of educational philosophers mentioned above, have developed a consciousness of the need for a guiding philosophy, and this need is now being accentuated by groups that are thinking seriously about the kind of a world we want in the postwar period.

What responsibility do the schools have in this period of unrest, uncertainty, and rapid transition and how can this responsibility be discharged? We are forced to one of two choices. We may drift along yielding first to one pressure, then to another, introducing new subjects and new activities into the program, or we may center upon a guiding philosophy that will give us a set of principles for determining what we shall do. The clarification of basic educational thinking with respect to enduring values is the role of educational philosophy in our time.

THE IDEALS OF DEMOCRATIC LIVING

Our conception of the purposes of secondary education inevitably grows out of our interpretation of the meaning of our

own particular design for living. This is true of any culture, for it can be shown that the schools reflect in a general way the values that are cherished by a culture. Sometimes the reflection is distorted by uncertainty, confusion, or a superficial understanding of the deeper meaning of the culture, but even though practices are inconsistent and confused, they are usually defended by some interpretation of the cultural ideals that are generally accepted. This, of course, is true of totalitarian countries where the schools serve as an agency for furthering the concepts of racial superiority, supremacy of the state, perpetuation of the power of the dictator, and other ideas with which we are all too familiar. If the schools of Germany failed in any respect to carry out the program of Hitler and his satellites, it was because those in charge of the schools did not understand them, rather than because there was any opportunity for the expression of ideological differences. And the task was fairly simple since the translation of the Nazi ideology was a matter of inculcating emotional allegiance through a thoroughgoing program of indoctrination, quite divorced from intelligent action or personal preference.

If, then, what we strive to accomplish in education is to make our schools the finest possible exemplification of democratic living, and an agency for the understanding and continuous reinterpretation and refinement of the ideals that characterize our way of life as unique and distinctive, those who are concerned with the program of the school—administrators, teachers, pupils, and community groups must seek to discover the deeper ideals and values to which we as a people give our wholehearted allegiance.

THE MEANING OF DEMOCRACY. What then is democracy? It must be recognized at the outset that there are few basic principles upon which those who seek to interpret democracy wholly agree. This is probably as it should be. Democracy is not merely a form of government but a way of living together in a highly complex society which is undergoing rapid changes. Our institutions, our social and economic programs, our standards of ethics and morality are in a constant state of reinterpretation.

Upon the nature of these interpretations, free men are bound to disagree. In fact, it is out of these disagreements that clarity and common plans of action arise. All of the avenues of communication must be kept open.

There is one concept about which we are in fair agreement. As a people, we believe in the optimal development of human personality. This thread seems to run through the history of all democratic peoples. It is generally agreed that all forms of social organization, of government, of arrangements for living together ought to foster the fullest and most complete development of all individuals. The test of contemplated action ought to be: "Does the proposed action foster the richest possible living for everyone?"

This concept must not be interpreted as rugged individualism, or as *laissez faire*, for individuals in a complex technological, and therefore interdependent society, cannot develop through the violation or ruthless destruction of the personalities of others. The test, therefore, is in reality, a social one in the sense that human action must ultimately find its justification in the extent to which such action enhances the living of all individuals who are touched by it. This introduces the concept of intelligence which is part and parcel of the way of life which we call democratic. We have faith in the intelligence of the common man, faith that he has the potentialities which when developed make it possible for him to solve his problems by setting up hypotheses, marshaling data, and drawing conclusions that are at least relatively free from caprice or whim. In other words, we have faith that once the ideal of the enhancement of human personality is accepted, it becomes the criterion by means of which the individual tests his conclusions and arrives at plans of action. Once we deny that human beings can so act, democracy will languish and die, and in its place must be substituted a form of organization in which those who have power may dictate, for better or for worse, the actions of their fellow-men.³

³ For support of this general position relative to the meaning of Democracy, see:

V. T. Thayer, Caroline Zachry, and Ruth Kotinsky, *Reorganizing Secondary Education*. New York, D. Appleton-Century Company, Inc., 1939.

THE PROMISE OF DEMOCRACY. Democracy, then, is an ideal which has never yet been fully attained, but for the value of which we have sufficient evidence to justify our continued allegiance. To the furtherance of this ideal we can well apply all our genius as a people. Since it is a faith, an ideal, a promise, we cannot hope ever to prove by scientific experiment that it is valid. We can only try in everything we do to further it—at least until we find that in the very nature of human beings the ideal cannot be made to work. At the present time, we have no reason to believe that it cannot be made to work. On the contrary, our experience in living and working together as a people is rich in evidence that the ideal is practicable. The fact that the evidence leaves much room for further improvement is a challenge, rather than a confession of defeat. We need only mention a few of the gains that have been made.

We have been freed from the notion that human nature is a fixed entity—that large masses of human beings are committed inevitably to a particular role in society or to a world of poverty, war, crime, or economic or social stratification. We believe that the lot of the individual and of mankind is definitely improvable through the application of intelligence to human living. Regardless of the fact that individual potentialities are vastly different, we are beginning to realize that the environment in which human beings develop has an important bearing upon the development of those potentialities. The concept of the static intelligence quotient belongs to another day. While man is definitely limited by his biological equipment, we have not yet

Current Documents on Democracy. Educational Policies Commission. Washington (February, 1941). See also other publications of the Commission.

A group of Social Scientists in The Ohio State University. *Democracy in Transition*. New York, D. Appleton-Century Company, Inc., 1937.

John Dewey, "Education and Social Change," *Social Frontier*, III, 235-238 (May, 1937).

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B. H. Bode, *Democracy as a Way of Life*. New York, The Macmillan Company, 1937.

George Counts, *Education and the Promise of America*. New York, The Macmillan Company, 1945.

begun to tap the possibilities which are open to him, given the opportunity for him to learn and develop. Thus, psychology and biology, while they do not imply or underwrite democratic values,⁴ do tend to justify our democratic faith in the intelligence of the common man and his ability to build a better world.

Science has provided us with the techniques for improving physical health, for extending the span of living, for so increasing the production of goods that an economy of abundance can now be realized. That science has also provided us with instruments of destruction by means of which civilization may obliterate itself is no indictment of science, but rather is a challenge to our creative intelligence to devise a scheme of controls that will make possible the extension of the fruits of scientific research to all of our people. While the First and Second World Wars have made us skeptical about waging a "war to end war," we still have hopes that the combined intelligence of the United Nations will be able to develop a plan of organization which will usher in the dawn of a new day for oppressed peoples everywhere. We have justifiable faith that we shall not again permit the conditions which brought about the World War II to exist.

We are evolving a new concept of government that holds that through the appropriate delegation of power, we may use government to improve the socio-economic conditions of all our people. Slum clearance and housing programs, the extension of electrification to millions of people, extensive highway construction, public works programs, flood and erosion control projects, and soil conservation and improvement programs are now commonplace. A few years ago, we were prone to regard such extensions of government as "socialistic" and as undermining the system of free enterprise. We engaged in endless debates as to whether Muscle Shoals should be turned over to private industry or be utilized for the benefit of the public. Now,

⁴ For an attempt to justify democracy through biology and psychology, see Henry Harap, et al., *The Changing Curriculum*. New York, D. Appleton-Century Company, Inc., 1937, Chapter II, prepared by Orville G. Brim.

we accept such extensions as steps toward the realization of a richer life for all—consequently as evidence that real democracy can be made to work.

In the field of capital-labor relations too, we have a striking illustration of the new role of government. We have found that the truly democratic techniques of group conference, discussion, and decisions cooperatively arrived at, can be made to work. It would be easy to point to the failure of negotiations, to the selfishness of both capital and labor, to the prevalence of strikes, to unfair employment practices, particularly with respect to racial and minority groups, as evidence of the failure of government regulation, but gradually we are evolving new and more effective procedures, which have for their purpose the extension of the benefits of technology, and which deny the right of any special group or class to act against public interest.

Freedom of speech and of the press are major tenets of the democratic ideology which we cherish and protect. The fact that we could hold a presidential election in the midst of war, and discuss all issues freely, indicates how deeply these values are embedded in our tradition. The contrast with the totalitarian states, where freedom of speech and of the press is dead, is indeed striking. We are daily impressed that these fundamental aspects are worth fighting for and that we should preserve and extend them.

THE IMPLICATION OF DEMOCRACY FOR SECONDARY EDUCATION

DEMOCRATIC LIVING IS THE FOUNDATION. . . . There is little disagreement with the general thesis that the philosophy of the secondary school should be based upon the democratic way of life. Difficulties arise when we try to agree upon the precise implications of democracy for the program.

Even the school policies and practices which seem most arbitrary and autocratic are not generally regarded by those who adhere to them as being outside the framework of democracy. In most cases, they are actually defended in the name of de-

mocracy. The administrator who determines policies with little or no consultation with his teaching staff or the community, does so in the name of efficiency, and on the grounds that teachers do not want to be bothered by the problems of policy making. Teachers themselves frequently support this view. They consider their main job as that of teaching, and demand freedom to carry on the teaching function. Frequently, the analogy is made between the operation of a school and the management of an industrial organization. Division of labor is held to be necessary and inevitable.

Fixed courses of study are often imposed upon teachers because teachers are held not to be competent to build their own. This function is asserted to be the job of experts, and consequently cooperative planning is not really called for, at least upon the level of the formulation of basic principles. Often textbooks are selected by a small administrative group for an entire system of schools, or even for a state, on the grounds that the classroom teacher has neither time, ability, nor inclination to assist effectively. Such practices are not regarded by those who follow them as inconsistent with democracy.

Upon the grounds of immaturity, and an inability to foresee the future, subject matter is frequently imposed upon students regardless of interests or felt needs, without any serious attempt to discover the actual problems that face youth in our present confused society. Students are given the opportunity for a great deal of planning of their so-called extra-curricular activities, but it is taken for granted that in the classroom material is to be learned without raising embarrassing questions about whether or not students have had any significant part in determining it. And students generally accept this practice without much question—for daily assignments of ground to be covered and of lessons to be learned give them a feeling of security, in the same manner that the teacher finds security in a smoothly running administrative machine. The whole question of whether or not the practice is democratic is never raised, because it is not considered pertinent.

Other examples of essentially the same thing are to be found

in the imposition of city, county, or state-wide testing programs upon teachers and students. They are justified upon the grounds of the need for uniformity and the impossibility of securing any very effective widespread teacher participation. The question is seldom raised as to whether or not the entire practice should be abandoned and another substituted that would provide for active participation. And certainly those who promote and perpetuate such programs would never admit that they were acting undemocratically.

All this is to say that autocracy is not generally practiced because of an adherence to a totalitarian philosophy, but in the name of a bigger and better democracy. The ends justify the means, it is claimed. Nothing inconsistent is seen, for example, in the use of force to secure cooperation. The writer does not wish to create the impression that the use of force is wholly incompatible with democratic action, but rather to point out that many school people have not thought clearly about all the implications of their practices. They adhere to democracy in principle, but for one reason or another do not practice it.

All this means that administrators and teachers need to clarify their conceptions of the meaning of democracy as a basis for their educational philosophy and practices.

Obviously, if the school is to become a dynamic force in promoting democracy, it must be transformed into an institution that provides the finest possible illustration of democratic living. The best way to learn the ways of democracy is to live democratically, and administrators, teachers, students, and parents need to discover and practice cooperative planning and working. The techniques for doing this are well known and are becoming fairly common practice. These will be discussed in later chapters.

THE EDUCATIONAL PROGRAM SHOULD BE UNIFIED.
It would undoubtedly be a gain if we were to consider education from the kindergarten through the junior-college period as a single educational unit with a common philosophy, but with differing programs at various levels. Then we could plan a develop-

mental program which would consistently stress democratic values and provide experiences appropriate to various levels of growth, without attempting to set off separate institutions, each with its own staff.

Our present organization is for the most part the result of accident or a mistaken notion of the developmental process. The elementary school traditionally was regarded as the institution for imparting common knowledge and skill.⁵ This conception, however, loses force when we consider that common, integrating education is now regarded as an important function at all levels including the college.

The theory that the secondary school is uniquely designed to meet the needs of adolescents, a developmental stage that was regarded as cataclysmic, rather than more or less gradual, has been in large part abandoned. While modern psychology does not minimize the significant changes which take place at the onset of puberty, there is a tendency to deny that these changes are sufficiently significant to justify the establishment of a separate institution. Indeed, the emotional difficulties at the early adolescent period are probably increased by the drastic changes in curriculum, organization, and personnel which are common in the junior high school. At the very point where the pupil needs the stabilizing influence of one teacher, he is confronted with several, all with special demands upon him. The complexity of the curriculum also presents a serious problem which might easily be eliminated.

It has also been held that special interests, which call for distinctly different treatment, emerge at the high-school level. But elementary schools also have afforded extensive opportunities for the exploration of special projects and particular interests which flower under the appropriate environment. This fact tends to blur the differences which traditionally have been con-

⁵ An interesting variation of this conception is developed by H. C. Morrison in his *Practice of Teaching in the Secondary School* (Rev. Ed), Chicago, The University of Chicago Press, 1931, and in other writings. He holds that the elementary period involves the "primary learnings of civilization" in the form of adaptation in reading, writing, and the number system. He thinks that this adaptation could be accomplished in four or five years.

sidered to be significant. The exploratory function of the junior high school, as stressed by Briggs, has in like manner been taken over by the elementary school as well as by the senior high school and the junior college.

About all, then, that can be said for the present divisions of our educational program is that they are administrative arrangements which in some cases operate to the detriment of the student. This is not to say that there should not be various groupings within the system in terms of maturation and interests, but there seems to be no basis for grouping that would justify separate and distinct educational purposes and administrative arrangements. When we speak, then, of a philosophy of secondary education, we really mean a philosophy of education with particular, though not exclusive, application to the adolescent level.

SECONDARY EDUCATION SHOULD PROVIDE FOR ALL YOUTH. Not all people accept this generalization.⁶ There are some who still regard the major purpose of the elementary school as the imparting of basic knowledge and skill in the so-called fundamentals. According to them the basic citizenship training should be completed in the elementary period, leaving the high school free to deal with the intellectually elite group that can profit by instruction in the classics, higher mathematics, and technical science. Some form of trade training, probably in a trade school or in connection with industry, would be provided for the vast body of young people which seems unfitted for academic and scholarly training. This group, being incapable of deep intellectual understanding or analysis, should be indoctrinated into the ideals of the culture and taught to give emotional allegiance to the principles involved.⁷ Only a small group, so it is held, are capable of thinking or of creative work, and the school is hampered by having to deal with the great mass of

⁶ See Robert Havighurst's statement in *General Education in the American High School*. North-Central Association of Colleges and Secondary Schools. Chicago, Scott, Foresman and Company, 1942, pp. 160-161.

⁷ This seems to be essentially the point of view of the Humanists. See, for example, Joseph Justman, *Theories of Secondary Education in the United States*. New York, Bureau of Publications, Teachers College, Columbia University, 1942, pp. 297-318.

young people who have little intellectual ability and no scholarly interests. It is, therefore, actually detrimental to this larger group to lead them to believe that they may escape the drudgery of hard manual work by going to high school. The disillusionment that follows when they discover that they cannot find satisfaction in the high school is psychologically bad and should be avoided.

That the present high-school program is poorly adapted to the needs of a vast majority of high-school students is not to be denied.⁸ The remedy is not to be found in making the high school more selective and centering upon the culture of the past to develop appropriate tools for thinking, but rather in changing the character of the entire program to provide common integrating education for all,⁹ and differentiated education in terms of special abilities and future vocational and cultural pursuits.

Whether or not we believe that secondary education should provide for all youth is very largely an academic question. Increasing numbers of young people are demanding admission to the secondary school and their demands are not likely to be denied. What we do with them when they come is the all-important consideration.

EDUCATION FOR CITIZENSHIP COMES FIRST. If secondary education is to provide adequately for all youth, it follows that a heavy emphasis must be placed upon general education, that is, upon education needed by all regardless of future vocation and upon training for dynamic and intelligent citizenship. Only in the process of living and working together can we re-create our world, since human personality does not develop

⁸ It is commonly assumed that present "college preparatory" curriculums are well adapted to the needs of those who go to college, but there is now considerable evidence to show that this is far from being true.

⁹ For an interesting interpretation of this concept, see *General Education in a Free Society*. Harvard Committee Report. Cambridge (Mass.), Harvard University Press, 1945. Especially Chapters I and IV and B. H. Bode, "The Harvard Report." *Journal of Higher Education* XVII, 1-8 (January, 1946) for a criticism of the Harvard position. See also, W. Lloyd Warner, Robert J. Havighurst, and Martin B. Loebe, *Who Shall Be Educated?* New York, Harper and Brothers, 1944.

in a vacuum. Thus, the school should be concerned primarily with the improvement of the common life; with the conditions for healthful living; the extension of common interests; the sharing of experience; the problems of everyday living in the home, and the immediate and wider community, and the development of a social philosophy. This is not to say that the individual is to be lost in the process, or that individual differences are not to be recognized, but rather that the unique contributions of individuals are to be cherished and given appropriate valuation in promoting common concerns. It is only by these means that individuality flourishes and develops optimally. As individual aptitudes and interests are discovered and developed, they play back into the life of the group and enrich it.

There is no hard and fast dividing line between what we have called general education and the vocational aspects of living. It is a question of how far the school can go in extending its program to include highly specialized activities. It can certainly go as far as to discover vocational aptitudes and provide experiences of a general character that will help to develop them. It can also provide much more opportunity for direct work experience, but the essential unity of experience must be kept constantly in mind, or we shall perpetuate the old dualisms between culture and vocation, and labor and leisure. When we give vocational education first place, we are apt to neglect the very things that give meaning to vocation and make of life a unified whole. Perhaps the best illustrations of successful work experience are to be found in so-called community-school programs in which children and adults work together upon common problems. But even here the danger is that the "work" aspects are not evaluated and intellectualized in terms of a pattern of living, but remain isolated activities with little meaning and of no particular consequence in personal-social development. Profound changes that are now taking place in industrial management and the relation of government to industry will undoubtedly provide an opportunity to extend programs of work experience in industry. In this way, we may be able to capitalize on our experience during the recent war. It remains to be seen

whether or not the school has the intelligence to use work experiences as opportunities to give increased insight into human values.

HEALTH EDUCATION IS ESSENTIAL TO DEMOCRATIC CITIZENSHIP. The secondary school is charged with the primary responsibility of providing and maintaining optimal physical and mental health for all its students. This means that adequate medical examinations and appropriate remedial treatment should be provided for all students as the starting point. But this is not enough. Health education should be made a regular part of the school program. Before this can be done effectively, the school needs to clarify its conception of the meaning of health. Clearly, it must embrace both the physical and mental aspects which are so closely interrelated that one cannot be considered without giving attention to the other. This unity is well expressed by the following statement:

The committee assumed that the health program should help each student to be physically fit, to achieve success, to have a growing sense of security, and to develop and clarify his social outlook. The committee further assumed that activities should be such as to encourage creative expression, the ability to think, social sensitivity, and cooperativeness.

In a health program so conceived, the physical, emotional, and intellectual aspects of the developing personality cannot be dealt with separately. Physical well-being is promoted through medical care, diet, and opportunities for normal functioning and development of the body. Concomitantly, intellectual and emotional well-being are promoted through opportunities to live and work in an environment which is as free as possible from the conditions producing fears, anxieties, conflicts, and emotional stresses, and in which working beliefs concerning the meaning of democratic living may be developed. The effective functioning of such a comprehensive idea of healthful living is possible only when every area of school life makes its contribution.¹⁰

The health program, then, should permeate the total life of the school, and it should get its direction from the ideals and

¹⁰ Rose Lammel, Ch., "Improving the Health Program of the Ohio State University School," *Educational Research Bulletin*, XII (September 15, 1943), 144.

values of democratic living. Such a program will not be confined to the four walls of the school, but will extend to a concern for promoting a social environment in the immediate and wider community that will be conducive to zestful living by all citizens. This calls for a study of institutions and agencies which our society has set up for promoting health. The school should be on the lookout for opportunities for student participation in such institutions and agencies.

THE INDIVIDUAL IS A DYNAMIC WHOLE, AND EFFECTIVE LEARNING IS AN ACTIVE PROCESS BY WHICH GOALS ARE ATTAINED. The traditional school has tended to regard the individual as passive, and learning as a "pouring in" process, a matter of establishing appropriate stimulus-response bonds in the nervous system. Much experimentation was carried on to determine the most effective way of establishing these connections. Since all learning was regarded as being specific, the child was called upon to react to a situation in piecemeal fashion, learning each element separately and then putting them together by a process known as association. Concept formation was merely a matter of discovering the common element in a number of specific situations.¹¹ It is easy to see how this emphasis led to increased attention to more or less mechanical drill as the major element in the learning process. The S-R bond psychology has been repudiated by most psychologists. However, the present emphasis on the part of certain educators upon discipline through drill and formal exercises, mastery of fundamentals, imposition of learning of logical systems of knowledge in science, mathematics, and language regardless of the interests of the learner, is within the same general pattern and subject to the same criticisms.

In recent years, a growing body of literature has tended to bring about an entirely new emphasis in psychological theory.

¹¹ See E. L. Thorndike, *Educational Psychology* (Briefer Course). New York, Bureau of Publications, Teachers College, Columbia University, 1921. Chapter XII. For a critical examination of this position, see H. Gordon Hullfish, *Aspects of Thorndike's Psychology in Their Relation to Educational Theory and Practice*. Columbus, The Ohio State University Press, 1926.

The human being is seen as an organism of remarkable complexity, but of equally remarkable unity.¹² It continuously absorbs, transforms, and expends energy in terms of goals which it strives to achieve, or to put it in other language, in terms of psychosomatic tensions which it seeks to relieve. The physical, emotional, and intellectual aspects of behavior are a unity that cannot, except for purposes of discussion, be separated. They are present in every instance of behavior. Learning is a matter of both analysis and synthesis. The individual in interaction with his environment responds to situations as "wholes," to use the terminology of the Gestalt psychologists. Every phase of personality is vitally dependent upon other phases, and all are acting and reacting at the same time.

The goals of the individual in large measure determine his behavior and these are highly charged with emotional components. The way the individual feels about what he does is inseparably bound up with the learning products, as well as with the way he goes about learning. And because the physical cannot be separated from the emotional and intellectual, the context of the learning act is very significant. To divorce intellectual products in the form of generalizations, facts, and information, from the total process of experiencing is to make of learning a very pale affair indeed.

What we know about the nature of the individual and learning suggests that optimal learning takes place when the indi-

¹² For further discussion of the organismic point of view in learning and its implications for education, see: H. S. Jennings, *Behavior of Lower Organisms*. New York, Columbia University Press, 1906, and *The Biological Basis of Behavior*. New York, W. W. Norton and Company, 1930. K. S. Lashley, *Brain Mechanism and Intelligence*. Chicago, University of Chicago Press, 1929. R. H. Wheeler, and F. T. Perkins, *Principles of Mental Development*. New York Thomas Y. Crowell Company, 1932. G. E. Coghill, *Anatomy and the Problem of Behavior*. New York, The Macmillan Company, 1929. V. T. Thayer, *The Passing of Recitation*. Boston, D. C. Heath and Company, 1928. H. B. Alberty (et al.) *Progressive Education: Its Philosophy and Challenge*. Yearbook Supplement, New York, Progressive Educational Association (May, 1941). *General Education in the American High School*. Chicago, Scott, Foresman and Company, 1942. *The Psychology of Learning*, The Forty-first Yearbook, National Society for the Study of Education, Bloomington, Public School Publishing Company, 1942 (Part II). Especially Chapter V, by George W. Hartmann, and Chapter VII, by T. R. McConnell.

vidual acts with reference to his interests, his recognized needs, and his own pattern of values. This is not to say that the school accepts his goals as satisfactory and valid. It must help him to evaluate his behavior, to create new interests, to sense neglected aspects of growth as well as to reconstruct his pattern of goals.

THE METHOD OF SCIENCE SHOULD BE CENTRAL IN THE EDUCATIVE PROCESS. That students should be taught to think reflectively, rather than to accept passively the conclusions of others, has long been accepted as an important goal of education. We are all familiar with the dictum: Students should be taught how to think, rather than what to think. However, seldom do we take seriously the full implications of this doctrine. When we do, we raise an issue upon which there are fundamental disagreements. Before we can develop a consistent philosophy of education, we must come to grips with this issue.

The most important aspect of this issue involves the range of applicability of the method of science to the solution of problems of human living. The Experimentalists hold that the method is universally applicable; that human living could be transformed, if we would give up the notion that while certain truths are relative and subject to continuous re-examination as more evidence is found, other truths are ultimate, final, and not subject to question. This position is clearly set forth by Otto in the following quotation:

In line with this conception, here are five requirements of objective verification:

1. Formulation of only such problems as can be solved by an appeal to the facts of the external world.
2. Gathering of facts and, so far as possible, all obtainable facts pertinent to the problem.
3. The subjection of facts, inferences, hypotheses, generalizations, to a test admitted to be decisive, publically applicable, open to the scrutiny of friend or foe.
4. Progressive building up of verification in which different investigators participate.
5. Recognition of the provisional result of even the most exacting demonstration, hence the relativity of all knowledge.¹⁸

¹⁸ Max Otto, "Scientific Humanism," *The Antioch Review*, III, 530-545 (Winter, 1943). Especially p. 532.

In addition to being an excellent analysis of what Dewey calls a "complete act of thought," and of the scientific method, several points stand out. First, the appeal is to human experience as the source of problems and the matrix in which they are capable of solution; second, the "willingness to try conclusions by the application of a test that is recognized as definite whatever may be the hopes or fears of investigator or critic,"¹⁴ and third, the relative character of all knowledge, whether it be in the realm of science, morals, or religion.

It is clear that if this view is accepted, it becomes more than a method. It defines a whole way of life.

Opposed to this view are those who would grant to the method of science a much smaller place in solving human problems. They claim it is applicable only to the verification of conclusions in the realm of objective fact. Truth concerning human values is derived by "reason," revelation, or intuition. It exists quite independent of the world of human experience. It is not created by man; it is discovered by him. This group holds to the philosophy of idealism, and is becoming known as the "New Humanists."¹⁵ In general, the views of Hutchins, Maritain, Adler, and Barr may be classified as idealistic in character, though there are wide variations within the group, depending upon differing conceptions of the sources and nature of truth.

In general, the Humanist holds that man, through the operation of mind, is capable of arriving at first principles, ultimate and final truths, and of utilizing those truths for the improvement of living. This he does, not by the method of science,¹⁶ but by utilizing his powers of understanding, judgment, and abstraction which go beyond sense data.¹⁷ The exercise of the

¹⁴ Loc. cit.

¹⁵ Not to be confused with *Scientific Humanism*, or *Naturalistic Humanism* as those terms are employed by the Experimentalist school of thought.

¹⁶ For an interesting discussion of the controversy over the role of science, see: John Dewey, "A Challenge to Liberal Thought," *Fortune*, XXX, 155-157; 180-190 (August, 1944). Alexander Meiklejohn, "A Reply to John Dewey," *Fortune*, XXXI, 207-217, *passim* (January, 1945).

¹⁷ For example, see Jacques Maritain, *True Humanism*. New York, Charles Scribner's Sons, 1940; and for an opposing point of view see, V. T. Thayer, *American Education Under Fire*. New York, Harper and Brothers, 1944.

power of logical thought, directed toward discovering the principles of the good life, is the key to human progress. And once discovered, the principles are universally applicable.

Perhaps the best source of knowledge of values according to the Humanists is that of the great books written by creative thinkers of the past,¹⁸ for, as Adler points out, they are really contemporary since "the problems they deal with and the ideas they present are not subject to the law of perpetual and interminable progress."¹⁹ This simplifies the task of education, for as Hutchins points out, "The heart of any course of study designed for the whole people will be, if education is rightly understood, the same at any time, in any place, under any political, social, or economic conditions."²⁰

To accept the humanistic position with respect to the nature and use of the method of science is to set up a dualism between the method of arriving at truth in the realm of science, and the realm of social living. By so doing we are likely to miss the full contribution of the scientific method.

THE PROBLEMS OF CONTEMPORARY LIVING AS THEY AFFECT YOUTH SHOULD BE EMPHASIZED. The philosophy of Experimentalism, which holds that the individual is dynamic, that learning is an active process, that the essence of education is the reconstruction of experience through the use of the method of intelligence, logically places the emphasis in curriculum making upon the problems of contemporary living. This does not mean that the past is neglected, but it does mean that the past has value principally as it helps to interpret the present. It is held that the present problems of the learner, say in the field of economic relationships, should be the point of

¹⁸ St. John's College, of Annapolis, Maryland, is the best illustration of this theory. See Stringfellow Barr, "A College in Secession," *Atlantic Monthly*, CLXVIII, 41-49 (July, 1941). For a critical evaluation of the program, see the *Journal of Educational Sociology*, XVII (November, 1944). Most of this issue is devoted to St. John's College.

¹⁹ Mortimer Adler, "The Crisis in Contemporary Education," *The Social Frontier*, V, 145 (February, 1939).

²⁰ Robert M. Hutchins, *The Higher Learning in America*, New Haven, Yale University Press, 1936, p. 66.

orientation in learning, but that these problems take on additional significance when seen in perspective with the past. Thus, the curriculum maker, through a study of the culture as it impinges upon the developing adolescent, seeks to discover the crucial problems, areas of conflict, and obstacles to optimal development which are the subject matter of present living, and to utilize these as focal points for selecting and organizing learning activities.

On the other hand, those who hold to the "mind training" theory, represented by the humanistic school of thought, tend to minimize the present problems of the learner and of the culture, and to lean heavily upon the work of the great thinkers of the past. Their contributions, it is held, provide illustrations of creative thinking in arriving at first principles or ultimate truth. By a study of the work of the great thinkers, the student develops his mind through the cultivation of reason, and also learns the basis of the good life. A mind so trained is capable of meeting whatever problems confront the individual.

The application of this theory to curriculum making definitely places the emphasis upon the classical tradition and the medieval period, for these periods are considered to be especially rich in creative materials which have stood the test of time. As a matter of fact, there are distinctive advantages in focusing attention upon the past. This view is held by Hutchins, for he quotes Paul Shorey with approval when he states:

If literature and history were a Heracleitian flux of facts, if one unit is as significant as another, one book, one idea, the equivalent of another . . . , we may for a time bravely tread the mill of scholastic routine, but in the end the same will succumb to an immense lassitude and bafflement. But if . . . the flux is not all, if the good, the true and the beautiful are something real and ascertainable, if these eternal ideals re-embody themselves from age to age essentially the same in the imaginative vision of supreme genius and in the persistent rationality and sanity of the world's best books, then our reading and study are redeemed, both from the obsessions of the hour, and the tyranny of quantitative measures and mechanical methods.²¹

²¹ Quoted by Robert M. Hutchins in *The Higher Learning in America*. New Haven, Yale University Press, 1936, pp. 64-5.

The above quotation supports Hutchins' position that:

One purpose of education is to draw out the elements of our common human nature. These elements are the same in any time and place. The notion of educating a man to live in a particular time or place, to adjust him to any particular environment, is therefore foreign to a true conception of education.

Education implies teaching. Teaching implies knowledge. Knowledge is truth. Truth is everywhere the same. Hence education should be everywhere the same.²²

In the judgment of the writer, high-school education can fulfill its responsibility for re-creating and refining democratic values only if it is willing to turn its back upon the classical tradition and orient itself in terms of the vital problems which young people face in our evolving culture. In such a matrix, the heritage of the race need not be lost.

We may summarize our discussion of the philosophy of secondary education upon which this volume is based by the following generalizations:

THE MEANING OF DEMOCRACY

- A. Democracy means that we have a high regard for the individual, whose optimal development we hold to be the supreme test of the value of our institutions and practices.
- B. Democracy requires faith in the intelligence of the common man to solve his personal problems and those of common concern.
- C. The method of intelligence applied to group living demands that all individuals participate in formulating plans and carrying out programs of common concern.
- D. Since democracy calls for the optimal development of all individuals, the doors of economic and social opportunity must be kept open. There must be no discrimination against races, classes, or creeds.
- E. The role of government in a democracy is to facilitate

²² Ibid., 66-67. A somewhat similar view is expressed by Norman Foerster, *The American State University*. Chapel Hill, University of North Carolina Press, 1937.

- the preservation and extension of human rights through powers exercised with the consent of its citizens.
- F. Since democracy is fundamentally a set of ideals, a design for living, the means for achieving it are in a state of continuous modification in the light of the rapidly changing social order.

THE NATURE OF THE INDIVIDUAL

- A. The human organism is a dynamic whole that develops in interaction with an active environment.
- B. The physical, intellectual, and emotional aspects of behavior are inseparable and operate as a unity in behavior.
- C. The goals of the individual (interests, ideals, wants, needs) provide the driving power for development.
- D. Human behavior is essentially purposeful, and goal seeking.
- E. The ability to think reflectively varies with individuals, but all normal individuals possess it in some degree and can improve their ability through appropriate training.

THE NATURE OF LEARNING

- A. Effective learning takes place when there is a reconstruction of experience, which functions in future behavior.
- B. The reconstruction of experience begins when equilibrium is upset by doubt, confusion, perplexity, in short when established modes of behavior are inadequate.
- C. Integration is a process of restoring the equilibrium of the individual in the case of organic or environmental upsets.
- D. Most effective learning takes place when goals are clearly seen and are accepted by the learner as ends worthy of achievement.
- E. Reflective thinking is the most effective method of learning since it is the process by which understandings are achieved, present behavior is evaluated, and unique modes of behavior are established.
- F. Routine and mechanical modes of response have value

- only as they have meaning to the learner and help him to reconstruct his experience.
- G. Learning is a process that involves both analysis and synthesis in relation to wholes.
 - H. Every new mode of behavior is, for a particular individual, creative.

THE ROLE OF THE SECONDARY SCHOOL

- A. To provide an educative environment directed toward the optimal development of all American youth regardless of intelligence level, or social or economic status.
- B. To provide for each student the richest possible experience in democratic living within the school, and to help the student to intellectualize such experience in terms of democratic values. This calls for active participation in group living and continuous practice in the re-creation of values.
- C. To provide for each student the conditions for optimal physical and mental health, defined in terms of adequate functioning in democratic living.
- D. To help each student to develop and utilize the method of intelligence in solving problems of human concern.
- E. To help each student to discover and extend his interests, and abilities, to meet his needs, and weave them into a consistent unified ever-changing design for living.
- F. To help each student to achieve a dynamic understanding of our democratic culture through the intelligent examination of the conflicting values and practices of the immediate and wider community.

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STUDYING THE ADOLESCENT AS A BASIS FOR CURRICULUM REORGANIZATION

P RECEDING CHAPTERS HAVE STRESSED THE POINT THAT THE efforts to improve the secondary-school curriculum must take into account the nature, problems, interests, and basic needs of the student in our culture. Too long the student has been regarded as passive and docile, and education as a process of "pouring in" facts and information that seem essential in the world of adult living. Whether or not we believe in the priority of the actual experience of youth, or of organized bodies of knowledge in curriculum reorganization, we are forced to the conclusion that the study of youth and his problems is of paramount importance.

ADOLESCENCE AND THE HIGH-SCHOOL PERIOD

The high-school period (grades seven to twelve) corresponds roughly to the period of adolescence, which has been defined as "a developmental period which extends from the end of childhood to the beginning of adulthood."¹ This definition does not

¹ V. T. Thayer, Chairman. *The Social Studies in General Education*. New York, The Appleton-Century Company, Inc., 1938, p. 71. Note. Chapter III of above volume, as well as the following references, presents the findings of the research staff of the Study of Adolescents of the Commission on the Secondary School Curriculum of the Progressive Education Association, made under the direction of Caroline Zachry: V. T. Thayer, Caroline Zachry, and Ruth Kotinsky, *Reorganizing Secondary Education*. New York, D. Appleton-Century Company,

help much for it is far from clear when childhood ends and adulthood begins. Growth is more or less a continuous process and, hence, any one stage defies accurate definition. We do know, however, that childhood is a period of almost complete dependency, while adulthood implies a large measure of social and economic independence. The nature of adolescence is not clearly defined because it is an "in-between period" which is characterized by continuous physical, social, intellectual, and emotional change. Roughly, we may say that it is the period beginning at about age twelve and extending to ages nineteen or twenty, but here again it is necessary to be extremely cautious because chronological age is not a very reliable index of development toward maturity. Contrary to much that has been written on the subject, physical changes are not abrupt but rather are gradual and continuous. There are also extreme variations among individuals even from the physical standpoint. Variations in intellectual, social, and emotional behavior are equally great. There are, however, certain characteristics of individuals during this middle, or transitional, period that are sufficiently common to justify a study of high-school youth. For our present purposes, it seems feasible to regard the term "early adolescence" as applicable to the lower grades of the six-year high school, and "late adolescence" to the upper grades, and to the first two years of the college period. It must be pointed out, too, that trends in development toward adult status are applicable only in general, and that such trends are only suggestive as clues in understanding a particular individual or small group.

THE BASIS OF ADOLESCENT BEHAVIOR

Unfortunately a great many misconceptions have grown up concerning adolescence.² Many of them are deep seated and continue to influence the attitude of the teacher toward the adolescent. The most generally held belief, which has been completely

Inc., 1939, Chapters II and IV; Harold Rugg, ed., *Democracy and the Curriculum*. New York, D. Appleton-Century Company, Inc., 1939, Chapter XII.

² See Hedley S. Dimock, Hugh S. Hartshorne, and Harold E. Haydon, *Rediscovering the Adolescent*. New York, Association Press, 1937, pp. 254-255.

discredited, is that the behavior of the adolescent is the result of innate tendencies which cause him to "recapitulate" the experiences of the race. This doctrine was popularized by G. Stanley Hall.³ It was held that little could be done about it. The adolescent simply went through the stages of development more or less automatically. Selfishness, greed, and possessiveness were explained in terms of the history of man and nations. The individual's behavior was regarded as the inevitable result of "the pent-up forces of the greed of thousands of years." Later on, generosity, altruism, and other desirable traits sprang up just as naturally because they are but later expressions of man's slow struggle toward civilization. The effect of this doctrine was, of course, to encourage a *laissez faire* attitude toward the development of the adolescent. Rousseau's conception of the inherent goodness of human nature fitted neatly into this theory. Since human nature was regarded as good, it was only necessary to keep the child from the contaminating influence of a depraved society and let his impulses develop. This doctrine, needless to say, influenced the early "child-centered" school profoundly.

Another misconception for which Hall and his followers were largely responsible was that adolescence represented a saltatory change which transformed the child almost overnight into a different kind of being.

"Adolescence is a new birth, for the higher and more completely human traits are now born. The qualities of the body and soul that now emerge are far newer. The child comes from and looks back to a remoter past; the adolescent is neo-atavistic, and in him the later acquisitions of the race slowly become prepotent. Development is less gradual and more saltatory, suggestive of some ancient period of storm and stress when old moorings were broken and a higher level attained."⁴

The fact that noticeable physical changes take place at puberty lends color to this theory. However, even these changes have been shown to be gradual and represent only external in-

³ See G. Stanley Hall, *Adolescence*. New York, D. Appleton-Century Company, Inc., 1905, Vols. I-II.

⁴ *Ibid.*, Vol. I, xiii.

dications of change. Another aspect of this misconception is the belief that during adolescence powers of reasoning and judgment spring into being. The moral sense is also supposed to flower with the result that the adolescent suddenly develops deep religious concerns.

This misconception is partly responsible for the fact that the junior high school was set up as a more or less separate institution. The adolescent, now being a new person, required a new type of institution. The marked shift in curriculum and method at the junior high-school level is directly related to this theory. It has been asserted that the elementary school should center upon the inculcation of fixed habits and skills, while the high school should develop reflective thinking. A great deal of harm has been done to students because of this practice for which there is no foundation in fact. We are now reasonably certain that no new traits develop during the period of adolescence. Many of the differences which we observe in adolescent behavior can be traced to the environment in which youth grow up. Even the development of interest in the opposite sex is a gradual one, and represents only a shift from the period of childhood when affection is largely centered in the immediate family.

THE ADOLESCENT IN A CONFUSED CULTURE

Adolescence is truly an "in-between" stage of development. The adolescent is struggling to grow up, to be recognized as a distinctive personality, to become socially and economically independent, to establish a home. Yet many forces in the culture prevent him from growing up. In normal times, even the older adolescent finds it difficult, if not impossible, to find steady employment. The use of technology and the system of private enterprise have both operated to keep him in the dependent role.⁵

⁵ The American Youth Commission has studied this problem thoroughly. Its reports present illuminating data concerning the plight of youth in an industrial society. See Howard Bell, *Youth Tell Their Story*, 1938, and Homer Rainey et al., *How Fare American Youth?* 1937, Washington American Council on Education. World War II brought about a temporary change in the situation, but from a long range point of view the generalizations presented by the Commission are still valid.

Participation in socially significant activities is a crying need, but he is denied the opportunity by a culture that seems to have no use for his services. Parents, too, have misunderstood him. If he acts "grown up," he is reminded that he is still a child. If he acts like a child, he is reminded that he is now "grown up." This frequently accounts for his ambivalence which sometimes causes parents a great deal of worry, little realizing that they are partly responsible for these apparent inconsistencies in behavior.

Then, too, the confusions in our culture make the development of maturity of behavior difficult. On every hand youth is confronted with conflicting values. He sees a society that has rejected fixed moral standards, but has developed few new ones to replace them. He is led to think of America as a land of plenty, yet on all sides is confronted with abject poverty. He sees ideas of cooperation and group participation in operation in some areas, but at the same time he is aware of the potency of the competitive system. He is told that the method of intelligence is essentially the method of democracy, but he sees momentous decisions being made by caprice, selfishness, or by a resort to outworn traditional values or violence. He is told that he should be tolerant, that he should have respect for others, yet he is confronted by the most flagrant violations of human personality in the treatment of races and minority groups. He learns in school the responsibilities and obligations of citizenship, yet senses the apathy of the citizen in participating in political life even to the extent of going to the polls to vote. Perhaps these commonplace illustrations of conflict and confusion in the culture are evidences of the growing pains of democracy, but they are inevitably reflected in youth and are responsible to a large extent for his behavior.

We should, of course, not take a defeatist attitude toward these problems. The school must help the adolescent to weave some sort of unity and consistency into his life. Democracy may not survive if youth is not prepared to meet its perplexing problems. Perhaps the confusions in the culture may serve as starting points for developing deeper insights.

ADOLESCENT DEVELOPMENT AND
CURRICULUM REORGANIZATION

Traditionally, the curriculum maker tended to stress the facts, understandings, and skills needed in adult life, and was concerned with adolescent development largely to the extent of finding out what the student was *capable* of learning at a given level. Only recently have curriculum-making groups sought to discover the needs, problems, and interests of young people and to utilize them directly in determining suitable curriculum materials.^a The new conception of the individual as a dynamic whole, and of learning as an active process involving continuous interaction with the environment has made it imperative to give the study of adolescence a significant place in curriculum development. The section which follows is intended to provide suggestions for curriculum-making groups in developing techniques, appropriate to the local situation, for determining the needs, problems, and interests of high-school students.

PROCEDURES FOR STUDYING
STUDENT DEVELOPMENT

The psychological and educational literature reveals that there are many ways of studying adolescent behavior. Some of them deal with the total personality and attempt to break it down into minute segments. Others deal with single aspects of personality and thus attempt to generalize their findings into complete patterns.

PHILOSOPHICAL METHOD. Some studies are philosophical in nature, depending upon adult remembrance and some concept of the way adolescents ought to behave in terms of some preconceived notion of human behavior. Thus, Rousseau used *Emile* to illustrate his theory of the essential goodness of human nature, and the doctrine of natural rights. G. Stanley Hall, as we

^a See Chapter VII for a discussion of the adolescent needs procedure in curriculum reorganization.

have seen, attempted to make adolescent behavior conform to the "Recapitulation Theory" and tended to ignore behavior that did not fit into that theory. William James started with a very long list of fixed and innate "instincts" that served as a basis for the explanation of all human behavior. His theory was not the result of actual scientific study but rather of general observation of human behavior. Traits that were found to be relatively universal in character were held to be "instinctive," and then in turn these instincts were used to explain why we behave as we do. He catalogued the following list of instincts: (1) sucking, (2) biting, (3) clasping, (4) carrying to the mouth, (5) crying, (6) turning the head, (7) holding the head erect, (8) sitting up, (9) standing, (10) locomotion, (11) climbing, (12) vocalization, (13) imitation, (14) emulation or rivalry, (15) pugnacity, (16) sympathy, (17) hunting, (18) fear, (19) appropriateness or acquisitiveness, (20) kleptomania, (21) constructiveness, (22) play, (23) curiosity, (24) sociability and shyness, (25) secretiveness, (26) cleanliness, (27) modesty, shame, (28) love, (29) jealousy, and (30) parental love.⁷ It was true, according to James, that these instincts were conditioned by the environment, but nevertheless they were the prime motivators of conduct; hence, a way of classifying behavior. To secure a catalogue of behavior at any given stage of development, it was only necessary to describe the way the individual behaved with respect to each instinct at that particular stage.

Thorndike⁸ ushered in the objective approach to the study of human behavior by attempting more careful descriptions of behavior to replace the vagueness that characterized James' analysis. In this way, he reduced to about eighteen the number of original "instincts and capacities." However, the behaviorist school of psychologists, through first-hand study of infants, has almost completely discredited the instinct theory, though under the heading of drives, impulses, or tendencies, many of the old descriptions tend to reappear. At the present time, studies of

⁷ William James, *Principles of Psychology*. New York, Henry Holt and Company, 1896, Vol. II, 404-441.

⁸ Edward L. Thorndike, *Educational Psychology (Briefer Course)*. New York, Bureau of Publications, Teachers College, Columbia University, 1921, pp. 11-48.

behavior, particularly of the adolescent, assume a new character. They involve actual studies of his interests, his needs, and his problems.

CASE STUDY METHOD. A promising approach to the study of adolescent behavior is that of making intensive studies of individuals and recording and interpreting the findings.⁹ This method involves careful observation by skilled case workers, and even then the results are apt to be warped by the psychological theory held by the investigator. The Adolescent Study of more than six hundred cases made in connection with the Commission on the Secondary-School Curriculum of the Progressive Education Association¹⁰ is a good illustration of the use of this method. As a result of generalizations which were drawn from these cases, the Commission classified adolescent "needs" in the following categories: (1) Personal Living, (2) Immediate Personal-Social Relationships, (3) Social-Civic Relationships, and (4) Economic Relationships. Under the first category, the following "needs" are listed: The need for personal health, the need for self-assurance, the need for a satisfying world picture and a workable philosophy of life, the need for a range of personal interests, and the need for aesthetic satisfactions. Under the second category are listed the need for increasingly mature relationships in home and family life, and the need for successful and increasingly mature relationships with agemates of both sexes. Under the third category are included the need for responsible participation in socially significant activities and the need for social recognition. Under the fourth and last category are classified the following: the need for emotional assurance of progress toward adult status, the need for guidance in choosing an occupation and for vocational preparation, the need for the wise selection of goods and services, and the need for effective

⁹ A study of junior high-school students that combines the case method with measurements and interviews was made in the Oakland, California Schools by Herbert Stolz and Harold Jones. For a report of this study, see Herbert Stolz, et al., "The Junior High School Age," *University High School Journal*, XV, 63-72 (January, 1937).

¹⁰ Op. cit. The work of this Commission will be discussed in later chapters in connection with guidance and curriculum development.

action in solving basic economic problems.¹¹ Needs as defined by the Commission are personal-social in character, and involve not only personal wishes and desires but also "lacks" that interfere with normal development toward adult status.

Through case studies, interviews, and observations of reactions of groups of adolescents, the Commission on Human Relations of the Progressive Education Association¹² classified the "Typical Focal Points in the Concerns of Adolescents" under the following headings: (1) Establishing Personal Relationships, (2) Establishing Independence, (3) Understanding Human Behavior, (4) Establishing Self in Society, (5) Normality, (6) Understanding the Universe.¹³ Under each of these headings are listed specific "focal points." For example, under the first category are included relationships with own sex, with opposite sex, concerns about fundamental mores, yearnings for understanding friendships, confusions arising from different standards in society, interference in establishing new personal relationships by the process of weaning from family, concern over change of self in different personal situations, and problems of achieving successful marriage. This statement has been used by a number of schools as a basis for studying their own students.

THE CHECKLIST OR QUESTIONNAIRE METHOD. The case study method is, of course, expensive and the interpretation of findings requires expert guidance. For this reason, attempts have been made to study groups of students by means of inventories, checklists, and the like. A "problems checklist" that has been used experimentally in a number of schools has been developed by Ross Mooney and others.¹⁴

¹¹ Committee on the Function of Science in General Education, *Op. cit.*, Chapters III and VI.

¹² Reported in H. H. Giles, et al., *op. cit.*, 315-320.

¹³ Compare with Walter C. Langer, *Psychology and Human Living*. New York, D. Appleton-Century Company, Inc., 1943, Chapters III-VI. This volume was originally prepared for the Commission on Human Relations of the Progressive Education Association. Langer classified needs under three categories: Physical, Social, and Egoistic.

¹⁴ Published by Bureau of Educational Research, The Ohio State University, 1941. This list was made up by classifying the actual problems reported by high-school students. For the results of applying this checklist to a large high

Three hundred and thirty problems were classified under eleven areas as follows: (1) Health and Physical Development, (2) Finances, Living Conditions, and Employment, (3) Social and Recreational Activities, (4) Courtship, Sex, and Marriage, (5) Social-Psychological Relations, (6) Personal-Psychological Relations, (7) Morals and Religion, (8) Home and Family, (9) The Future: Vocational and Educational, (10) Adjustment to School Work, and (11) Curriculum and Teaching Procedures. In the first area are included: being underweight, being overweight, not getting enough exercise, tiring too early, frequent illnesses, frequent headaches, weak eyes, lack of appetite, digestive troubles, not getting proper diet, not as strong and healthy as I should be, not enough outdoor air and sunshine, poor complexion, frequent colds, poor teeth, poor posture, being clumsy and awkward, too short, too tall, not very attractive physically, physical handicap, afraid I may need an operation, frequent sore throat, menstrual disorders, not enough sleep, nose or sinus trouble, poor hearing, smoking, speech handicaps, and foot trouble or ill-fitting shoes. The application of this checklist shows wide diversity among high-school students. Some students check very few problems, while others check a great many. In the Stephens-Lee Survey¹⁵ 98 out of the 330 problems were checked by 10 per cent or more of the students. Problems involving personal-psychological relations were checked by the greatest number of students. Problems involving morals and religion and home and family were lowest on the list.

This checklist, as has been pointed out, was made up of the actual problems that high-school students mention when they talk or write about their "worries" or concerns. The results of its use are conditioned by the fact that many students are not conscious of their problems. Hence, the problems not checked by a student are often as revealing as are the problems that he checks. Another conditioning factor is that students often are hesitant about revealing to teachers the personal problems that

school, see Ross Mooney, "Surveying High-School Students' Problems by Means of a Problems Checklist," *Educational Research Bulletin* (Ohio State University) XXI, 57-69 (March 18, 1942).

¹⁵ Ross Mooney, *Ibid.*

seem to them to be most significant. Used intelligently, however, such a checklist undoubtedly has great value to the teacher in understanding the student and helping him to plan his curriculum.

The Ohio State University School ¹⁶ utilized the "problems" technique for studying the students of that school. A committee of the staff prepared its own checklist derived from various sources. The graduating seniors were asked to list the ten most crucial individual and social problems which face young people. Samplings were made of students' problems at various levels. The faculty, together with a large group of adults, also prepared lists of what they considered to be the crucial problems of young people. A master list of problems was then made up under the following categories: (1) Family, (2) Vocation, (3) Pupil-Teacher Relationships, (4) Our School, (5) Self-discipline, Mental Hygiene, and Health, (6) Planning Work and Budgeting Time, (7) Religion, (8) General Social Relationships, (9) Sex, (10) Out-of-School Matters, (11) Skills, (12) College, (13) War, Peace, and Patriotism, (14) Social, Economic, and Political Organization, and (15) Miscellaneous Aspects of Citizenship. To illustrate the nature of the problems presented, the various problems under Category No. 1 (The Family) are listed: getting along with brothers and sisters, making arrangements with parents so as to drive the car, arranging dates so that parents are not displeased, selecting a college to the satisfaction of parents and myself, adjusting to separation from parents or close relative for long period, learning to carry fair share of the family responsibilities (housework, spending only fair share of money, etc.), how to show appreciation of what my parents have done for me, preparing for marriage and family life, the extent to which parents should dominate our lives, the extent to which children should break away from parents, and adjusting to friends who come from families with different social habits or standards.

¹⁶ Committee on Problems Study, *An Inventory Study of the Personal and General Social Problems of 256 Students in Grades Seven to Twelve, Inclusive*. Columbus, The Ohio State University School, 1940.

The conclusions resulting from the use of this inventory indicate that there are wide differences in problems from grade to grade; that no one problem or group of problems is applicable to any one grade; that at the lower levels the emphasis is upon personal, immediate problems, while in the higher grades (eleven and twelve) there is a marked increase in interest about world affairs and the responsibility of the individual for them; that there is little or no interest in religious problems at any level.

This study is significant in that it emphasizes a procedure by which a school may study its own students. The conclusions are probably not applicable to adolescents in general, because of the selective character of the population of this particular school.

Another study of the inventory type is reported by Doane.¹⁷ First, a survey of the literature pertaining to adolescent needs was made by the author. A need, in the sense the author uses the term, refers to "a state of tension requiring relief." It includes "any status which the individual will seek to change—any tension he will seek to relieve."¹⁸ From this explanation it follows that a need is "any disturbance which arises from a state of affairs either within his own body or in the environment in which he lives and which impels him to do something to make it more to his liking."¹⁹ Upon the basis of his definition and the survey of the literature, he concludes that there are fifteen major areas in which needs and problems arise. They are as follows: (1) Vocational Choice and Placement, (2) Philosophy of Life; Mental Hygiene, (3) Getting Along with People, (4) Morals, (5) Plans for Marriage and Family, (6) Leisure Time and Recreation, (7) Finances, (8) Relationships with the Opposite Sex, (9) Health, (10) Sex and Reproduction, (11) Religion, (12) Relationships with Family, (13) Social Competence, (14) Conventional Subject-Matter Areas, (15) Other

¹⁷ Donald C. Doane, *The Needs of Youth*. Teachers College, Columbia University, Contributions to Education, No. 848. New York, Bureau of Publications, Teachers College, Columbia University, 1942.

¹⁸ *Ibid.*, pp. 43-44.

¹⁹ *Loc. cit.*

Areas of Interest. Wishing to avoid asking the student directly what his needs were, the author used the device of describing twenty "courses" which included all of the needs which seemed pertinent. The student was asked to check the five courses which he would most want to take in one year, and the five courses he would least want to take. In order to illustrate what is meant by a "course," the following description of course No. 1 is quoted from the inventory.

Deciding what kind of work you want to do when you finish school. Finding out what kind of work you are best fitted for. Learning how to prepare yourself for the kind of work you intend to do. Finding out what it is like.

How to find a job. How to apply for a job. Why some people get jobs and others do not. Keeping a job. Training for a job that you are interested in which will fit you for immediate employment upon finishing school—with an employment service which can give you reasonable assurance of obtaining such a job. Finding out what different kinds of work you like; what the chances are in them; what the pay is apt to be, etc.²⁰

To make certain that the needs of the students were revealed, they were also asked to check a large number of topics which presumably would fall under the various courses proposed.

More than two thousand usable replies were received from high-school students in several geographical localities. The following are some of the most important conclusions that were reached: (1) The area of greatest concern to the total group was vocational choice and placement; (2) help in the development of social abilities, relationships with the opposite sex, health problems, philosophy of life, problems of finance, learning to play an instrument, reading for enjoyment, and science topics (boys) all received high rankings; (3) religion, current problems, government and history, learning a foreign language and problems involving moral standards received relatively low rankings. The study is significant as an illustration of a procedure for studying adolescents. It does not throw much light upon the wider problems of guidance and curriculum making because it

²⁰ *Ibid.*, p. 129.

excluded from consideration needs that are not immediately felt by the student.

A recent study of consumer problems of high-school students which utilized the questionnaire technique is reported by Van Til.²¹ One hundred eighty students in differing types of communities were asked, "If your school offered the twenty-eight fields of study which are described on the accompanying sheet, which six would you most want to take?" The students were also asked which six of the twenty-eight fields they would least want to take. The fields which were found to be most popular with students are the following: (1) education—how to choose, buy, and use it; (2) clothing—how to choose, buy, and use it; (3) making your house a home; (4) how Americans can be sure of jobs and a living; (5) making the most of the health you have; (6) planning your spending; (7) the kinds of economic systems; and (8) what to do when you have time on your hands. The investigator concludes that:

Educators have the obligation to utilize to the fullest extent the needs felt by students, needs in the field of consumer education that are revealed in this study, and to help them to the attainment of powers that will bring satisfactions of lasting value. But education has also another obligation, to propose other needs, and to make unmistakably clear to young people the importance and significance in their own lives, at the present or in the probable future, of what skilled teachers believe to be desirable for growth in effective living. Students must not only recognize these proposed experiences as desirable, but they must also desire them before they will exercise intelligent study that leads to both achievement and retention of powers.²²

THE INTERVIEW METHOD. Perhaps the best known and most significant study which utilizes the interview as a basis for gathering data is the so-called Maryland Youth Survey.²³

²¹ William Van Til, "Consumer Problems of the High School Student." *Bulletin of the National Association of Secondary School Principals*, XXVIII, 79-86 (November, 1944).

²² *Ibid.*, p. 86.

²³ Howard Bell, *op. cit.* Other studies by the American Youth Commission include: Surveys of youth in Dallas, Texas and Muncie, Indiana. These reports are available in mimeographed form only.

The replies of more than thirteen thousand youth, secured through interviews with them at their homes, or places of work, are made the basis of the report. Aside from yielding significant information on the status of youth, the study reveals that thirty-two per cent of the youths studied stated that they had no "perplexing problems." The problems listed by the remaining youth were classified in order of frequency as follows: (1) Economic Security, (2) Education, Vocational Choice, (3) Home, (4) Personality Adjustment, (5) Social Relations with Opposite Sex. This study, like the one listed above, indicates that young people need much help in defining and clarifying their problems.

TRENDS IN ADOLESCENT DEVELOPMENT

The above section sketched briefly some of the current procedures utilized in studying the high-school student. Only secondarily did it deal with the knowledge of adolescent behavior that has been gained through the employment of these and other methods. This section attempts to bring together the most pertinent conclusions which can be drawn from authorities in the field of adolescent development. The work of psychologists, mental hygienists, scientific experimentalists, and case workers has been examined in order to determine trends in the development of the adolescent.²⁴ Some of the trends listed are not well documented experimentally, but all probably have a sufficient amount of evidence to justify listing them. The findings should be regarded as tentative and subject to further examination in the light of actual classroom practice.²⁵

The five major categories (i.e., Health, Security, Achievement, Interests, and Outlook on Life) which are used to classify

²⁴ The study on which this section of the chapter is based was made by a graduate seminar group in secondary education at the Ohio State University under the direction of the author. The following students participated in the analysis: Glenn Austin, Wilbur Beuchler, Eleanor Browne, Harry Eberhart, Newton Hodgson, Clara Martin, Bernice O'Briant, Helen Starr, Harold Shane, George Walter, Ralph Pounds, and George Salt.

²⁵ See, for example, *How Children Develop*. A report of the faculty of the University School, Columbus, The Ohio State University, 1946.

the trends serve only as centers of emphasis, and, of course, are not mutually exclusive. For example, if "health" is taken in its broadest aspects, it would include much that is listed under the other four categories. Likewise, any one of the other categories could be expanded to include much of the material. It was felt, however, that they were helpful in serving as a sort of checklist to be sure that no trends were left out, and also that they facilitate an understanding of the many facets of the adolescent personality.

The trends listed do not, of course, point a definite direction for education. It is true that some of the "from—to" statements indicate desirable growth. This is because the characteristics of behavior are profoundly influenced by the nature of the culture in which the adolescent develops. Obviously he reacts in terms of the democratic values which impinge upon him in the school and community. If such trends were not in evidence, it would seem to mean that schools were doing little or nothing to develop those characteristics of personality that are held to be desirable in a democratic society. However, effective use of these trends in school practice, either from the standpoint of the curriculum or guidance, presupposes that the ideals and values of our democratic way of life are utilized to give direction to development. In other words, the statement should be interpreted in light of a philosophy of education.

At the outset of the study, an attempt was made to use three levels of development (i.e., Early, Middle, and Late) of adolescents as a basis for classification, but it was soon discovered that it was more satisfactory to list the trends as from early adolescence to late adolescence. This is because the behavior of adolescence is so variable, often indicating ambivalence, and also because of wide differences between the sexes, and in chronological age groups of the same sex. In short, the findings are held to be reasonably valid only for large groups, and even then great allowances must be made for differing interpretations. When it was impossible to establish a trend as belonging exclusively either to early or late adolescence, it is listed in the center of the page.

A. MAINTAINING PERSONAL HEALTH AND PROMOTING HEALTHFUL LIVING BY:

- I. Providing for the protective and maintenance phases of health, such as:
 1. Adequate rest
 2. Proper diet
 3. Freedom from infection
- II. Providing for recreation
- III. Providing for optimum physical and organic development
- IV. Understanding the concept of normality in relation to oneself and others in such aspects as:
 1. Physical development
 2. Mental development
 3. Social development
- V. Developing a concern for promoting healthful living in the immediate and wider community
- VI. Providing for adequate emotional and mental development in relation to personal health

TRENDS

FROM:

1. Requiring a minimum of 10-10½ hours of sleep because of the demands of physiological changes taking place within the body
2. Tendency to nervous overactivity
3. Needing a daily caloric intake of 4000 calories for boys and 3000 calories for girls
4. Having a tendency to over-eat

TO:

- Requiring a minimum of 8-10 hours of sleep because of relative completion of physiological change in the body
- Needing a daily caloric intake based on standard of adult consumption and amount of work done
- Having a tendency to base eating habits on food fads which have been accepted by the group as the thing to do

FROM:

TO:

- | | | |
|-----|--|---|
| 5. | Susceptibility to the common cold | |
| 6. | Having little or no susceptibility to contagious diseases of childhood | Having susceptibility to food deficiencies, organic, and environmental diseases |
| 7. | Not realizing fatigue, and continuing activity until a point of chronic fatigue is reached | Having more resistance to fatigue, becoming somewhat aware of the condition, and discontinuing activity |
| 8. | Being extremely interested in strenuous group games and activities with the same sex | Being interested in the opportunities for socialization provided by games and sports with those of the opposite sex |
| 9. | Desiring participation in activities with the same sex | Desiring dates with the opposite sex |
| 10. | Being interested in organized group activities, such as Boy Scouts or Campfire Girls | Being interested in individualized and small select group activities on adult level—cliques |
| 11. | Enjoying outdoor sports, such as picnics, hikes, and expeditions | Continuing interest in sports, but an added enjoyment in sedentary activities, such as visiting, entertaining company, attending concerts, and entertainments |
| 12. | Maintaining wide versatility in play interests where practically all games are enjoyed | Having less versatility in play interests, and desiring participation in highly organized team games and specialized sports |

FROM:

13. Rapidly increasing strength, although lagging behind potential strength of boy's frame

14. Being clumsy and awkward

15. Rapidly developing physiological changes—heart increasing in size, increasing blood pressure, perspiration increasing, sex glands developing

16. Growing unevenly in various parts of the body, legs lengthen, jawbone develops, boys' shoulders widen, girls' hips widen

17. Rapidly maturing organs of reproduction and secondary sex characteristics

18. Girls developing ahead of boys (about three years); girls heavier and taller

19. Having poor posture because of difficulty of adjusting to extremes in weight and height

20. Girls having poor posture due to embarrassment caused by development of secondary sex characteristics

TO:

Approximate doubling of boy's strength

Improved use of the body and motor ability in games which demand skill

Body reaching a state of balanced and harmonious physiological condition

Achieving uniformity of development

Completion of the development of secondary sex characteristics

Boys catching up with girls in pubescent changes, becoming heavier and taller

Achieving typically adult posture

Girls adjusting to these characteristics, and changing posture (may be good or bad)

FROM:

TO:

- | | |
|---|---|
| 21. Fatigued posture in evidence in boys and girls during both stages | |
| 22. Desiring participation in vigorous muscular activity (both boys and girls); sports an end in themselves | Daydreaming, imagining. Girls interested in non-strenuous activities, and in sports for social advantages. Boys interested in sports when girls are spectators. |
| 23. Increasing weight due to growth of muscle | Increasing weight in girls due to development of subcutaneous layer of fat |
| 24. Varying degrees of nervous instability evidenced by reactions to situations, due to uneven development of bodily parts and organs | Beginning of development of insight into motivation of people's activities |
| 25. Fearing that development is not normal | |
| 26. Being unconscious of the body | Girls becoming interested in bodily adornment, and boys in developing a strong physique |
| 27. Feeling socially inadequate | Developing feeling of social adequacy |
| 28. Fearing social situations | Desiring social experiences |
| 29. Highly emotional, and easily motivated by competition in athletics | |
| 30. Alternating periods of fighting and roughhousing with periods of dreaming and withdrawing | Evidencing adult behavior |

FROM:

31. Changing moods suddenly,
from extreme happiness to
dullness and moodiness

TO:

Maintaining a better balanced
condition of emotional expres-
sion

B. ACHIEVING AND MAINTAINING A SENSE OF SECURITY THROUGH:

- I. Gaining and holding affection, confidence, and esteem
- II. Status within the family group, which includes:
 1. Feeling of responsibility
 2. Feeling that one "counts"
 3. Feeling of "belongingness"
- III. Status with agemates of both sexes, which involves:
 1. Making friends
 2. Growth toward heterosexual adjustment
 3. Developing standards of personal conduct
 4. Allegiance to "gang"
- IV. Status in groups (school, church, small group activities, etc.)
- V. Status in immediate and wider community, which involves:
 1. Social recognition
 2. Participation in socially significant activities
- VI. Status in economic life, which involves:
 1. Earning money
 2. Work experience
 3. Satisfying occupation

TRENDS

FROM:

1. Being rather boisterous,
vigorous, and active in
manner
2. Seeking confidence of par-
ents through obedience

TO:

Becoming more dignified and
self-controlled

Achieving independence by be-
ing able and willing to accept
accompanying responsibility

FROM:

TO:

- | | |
|---|---|
| 3. Having a limited sense of self-confidence and esteem | Developing self-assurance |
| 4. Developing mutual interests and similar points of view with others | |
| 5. Depending upon parents for guidance | Desiring mature relationships with adults other than parents |
| 6. Desiring emancipation and new experiences outside of home; at the same time wanting to keep security of love and understanding in home | Desiring mature relationships in home, and participation as adult in home life. Interpreting family relationships in the light of founding own home |
| 7. | Increasing independence |
| 8. Wanting to understand the physiological features of sex | Understanding emotional and social features of sex as involved in everyday life |
| 9. Associating with "gangs" with little regard for age, intelligence, or social status | Seeking membership in those groups in which one most desires status |
| 10. Desiring identification with the herd, the crowd of boys or girls | Identifying self with small select group |
| 11. Experimenting in relations with opposite sex. This behavior usually characterized by teasing and boisterous antics | Dating, looking forward to founding a home |

FROM:	TO:
12. Establishing oneself through loyalty to members of one's own sex	Participating in activities involving both sexes
13. Dating only occasionally	Accepting dates and "steadies" as the usual thing
14. Learning how to get along with others	Increasing insights into self and others
15. Attempting to understand masculine or feminine role	Understanding of one's sex role
16. Tending to be self-centered	Becoming more cooperative
17. Questioning existing moral and social conditions	Developing more or less stable and consistent attitudes toward life
18. Being a "good mixer" and displaying skill in games with own sex	Developing tact, poise, and other social graces in one's relationships with both sexes
19. Rarely doing or saying anything without first considering the probable reaction of one's group	Desiring approval of small, select groups
20. Desiring regulation and direction, aid in making decisions; yet also desiring freedom and opportunity to assume responsibility	Increasing self-dependence
21. Desiring security of adult understanding, guidance, and friendship	Seeking a place in society of adults, on adult level

FROM:	TO:
22. Beginning identification with community life	Establishing self in relation to community and world
23. Preferring experiences confined to immediate social environment	Reaching toward activities and interests in wider environment
24. Selecting acquaintances from immediate environment	Extending contacts into enlarged social groups in wider environment
25. Identifying oneself with persons very similar to oneself	Finding one's place in the social and economic world
26. Working for little or no financial reward	Working for money to gain economic independence
27. Assuming some responsibility for oneself in family group	Assuming more responsibility in family and other groups on more adult level
28. Deriving occupational interests from life work of family, relatives, and friends	Seriously considering particular types of occupations selected on a more objective basis
29. Willingness to do many different kinds of work	Concentrating on a few more specialized types of work
30. Developing a desire for economic security and independence	

C. DEVELOPING AND MAINTAINING A SENSE OF ACHIEVEMENT BY:

- I. A sense of personal adequacy through satisfaction in accomplishment, which involves:
 1. Abilities and requisite skills in sports, games, arts, crafts, special interests, and the like
 2. Confidence in one's competence in one or more significant areas

- II. Successful participation in group activities (school, home, etc.)
- III. Successful participation in community life, (e.g., community groups: recreation, health, social, and civic organizations)
- IV. Successful participation in economic life, through
 - 1. Part or full-time work, in satisfying socially significant activities
 - 2. Planning with others for improving the economic system
- V. Gradual attainment of independent status as an adult
- VI. Understanding of and participating in the solution of basic economic problems (e.g., capital and labor, government control, conflicting economic systems, unemployment, standards of living, and the like)
- VII. Increasing effectiveness as a consumer of goods and services through:
 - 1. Efficient use of authority
 - 2. Adequate planning
 - 3. Improved standards of judgment
 - 4. Improvement of taste

TRENDS

FROM:

- 1. Being absorbed in manipulative, constructive, and experimental activities
- 2. Shifting attention frequently
- 3. Having difficulty in concentrating
- 4. Having little creative ability, making unimaginative configurations

TO:

- Pursuing intellectual activities with enthusiastic devotion
- Increasing attention span
- Increasing ability to concentrate
- Experimenting with new situations, seeking expression in various arts with reawakened creative spirit

FROM:

5. Enjoying "gang" activities

6. Avoiding heterosexual contacts

7. Being physically restless

8. Utilizing frequently varied attention-getting devices

9. Breaking down of well-established childhood standards and values. Uncouth, inconsiderate to family, nail biting, slovenly speech habits, slang and swearing, sloppy dress, lack of care for belongings, etc.

10. Period of regression toward infantile habits of bodily gratification (ambivalence), temper tantrums, greediness, etc.

TO:

Changing social interests toward smaller, more select groups, which consider community standing, race, car ownership, etc.

Increasing interest in opposite sex

Achieving greater degree of self-direction, of restlessness along more constructive lines conditioned by the school environment

Utilizing more subtle attention-getting devices (dress, etc.), attempts to secure prestige through athletics, dramatics, dancing ability, sophisticated behavior, display of femininity and masculinity

Increasing concern for personal appearance. Greater acceptance of established values. Desire for adult status motivates greater conformity

Increasing self-control, less confusion of values

FROM:

11. Being interested in Scouts and other democratic groups
12. Behavior fluctuating from roughhousing to daydreaming
13. Lessening of sense of satisfaction in simple pre-adolescent activities; creative dramatics, helping teacher, simple parties. Antagonistic attitude toward adults at this period
14. Having narrow sociocultural relationships
15. Desiring acclaim of age-mates, especially of same sex
16. Increasing emotional instability
17. Showing little concern for more than immediate future. No concentrated interest in social adjustment. Immature and unrealistic vocational attitudes

TO:

- Being interested in sororities, fraternities, and other less democratic groups. Economic and class considerations becoming important
- Inhibiting exuberance of spirit because of desire for adult status
- Increasing sense of establishment of status and willingness to cooperate with others
- Widening sociocultural relationships, identifying self with sociocultural groups, especially underprivileged and heroes
- Desiring status and popularity in the total school
- Increasing emotional stability, but instability still a potent factor
- Exhibiting deep concern for future and for social adjustment, adulthood a general goal. Increasingly intelligent vocational attitudes

D. DEVELOPING AND MAINTAINING EVER-WIDENING AND DEEPENING INTERESTS AND APPRECIATIONS THROUGH:

- I. Understanding and gaining a measure of control over the environment (e.g. scientific, artistic, and literary interests)
- II. Understanding of, and respect for, the cultural heritage (e.g. using cultural understandings for improvement of living)
- III. Responding to art in all aspects of living
- IV. Participating in games, sports, hobbies

TRENDS

FROM:

1. Being concerned primarily with family relationships
2. Working out harmonious relationships with siblings and parents
3. Having relatively few, home-centered, specific, concrete interests
4. Liking pets. Wanting possessions as ends in themselves (e.g. bicycles, hunting knives)
5. Being antagonistic toward opposite sex. Seeking society of members of own sex almost exclusively. Gang age
6. Caring little about general personal appearance

TO:

- Being concerned with ever-broadening relationships outside of the family
- Making more friends, getting along with friends
- Having relatively extensive, catholic, broad interests, not necessarily based on immediate experience
- Seeing possessions as means to more socialized ends
- Developing an active interest in opposite sex. Seeking means of associating with opposite sex
- Paying considerable attention to matters of dress and neatness of appearance

FROM:

7. Displaying independence in social conduct and disdain for manners

8. Avoiding dancing. Tending to be self-conscious and unhappy at mixed parties, exhibiting antic, boisterous behavior by way of compensation

9. Exhibiting antagonism toward adults

10. Playing without reference to technique of games or sports

11. Finding intellectual activity interesting only as associated with immediate experiences

12. Manipulating, constructing models and apparatus, tearing up old cars, alarm clocks, etc.

13. Spending allowance with maximum success and satisfaction

14. Definite, but rather unrealistic choice of vocation

TO:

Making an attempt to acquire poise and social graces

Learning to dance. Participating in parties and other mixed social gatherings as major centers of interest

Seeking association with adults on adult level of interests

Playing as a form of social action. Finding satisfaction in the development of techniques

Finding satisfaction in intellectual activity for its own sake. Finding pleasure in organizing and classifying knowledge

Seeking functional "why" of things, scientific theories, explanations of the workings of things

Looking for ways of increasing available spending money as means of establishing relative economic independence

Developing interest in and more realistic selection of vocation

- | FROM: | TO: |
|---|--|
| 15. Regressing in creativity as indicated by waning appreciations and interests in respect to artistic activity | Surging artistic creativity, characterized by imagination and considerable care and precision in work |
| 16. Focusing interests on immediate home-centered environment | Developing high idealism and concern for welfare of society. Identifying self with oppressed social groups or with "causes." |
| 17. Special interests | |
| a) Boys—Driving a car, owning or borrowing a car as sign of status and symbol of sexual role | |
| b) Girls—Shopping, personal adornment, lipstick, hairdo, etc., with similar motivation | |

E. ACHIEVING A SOCIAL OUTLOOK ON LIFE THROUGH:

- I. Increasing unity and consistency in thinking and action
- II. Personal standards of conduct
- III. Increasing ability to deal with related abstractions
- IV. Increasing ability to recognize and deal with conflicts
- V. Increasing understanding of the nature of truth and techniques for discovering and utilizing it

TRENDS

- | FROM: | TO: |
|---|--|
| 1. Acceptance of family and gang standards | Formulation of new codes of conduct, ideals, and standards of love, comradeship, and group association |
| 2. Loyalty to family, teachers, gang, and friends | A national and even international loyalty through an increasing degree of conceptualization |

FROM:

3. Egocentric, transient, fanciful, unfruitful, and even impossible plans and purposes
4. First experiences in loving another, in "crushes," and in hero worship
5. Identification with family group
6. Religious concern, on part of some, based on feelings of fear or guilt
7. A great degree of conventionalism and conservatism on social problems

TO:

- Plans and purposes expanding to take in welfare of larger groups and growing more realistic in terms of possibilities inherent in cultural situation and individual potentialities
- Satisfactory emotional relationships in personal life which drive individual to strive for success in social-civic and economic life and thus prove worth in adult world
- The seeking by some, through an interest in contemporary problems, for identification with mass movements and perhaps for losing themselves in crusading religious or political idealism (May revert to gang-age form of expression, as in fascism.)
- Tending toward a settlement of religious problems based upon a more abstract concept of God as a disembodied spiritual force, or one based on acceptance of humanitarianism in the place of supernaturalism
- A lesser degree of conventionalism and conservatism on social problems; perhaps even to liberalism. (Girls usually reject accepted beliefs less frequently, than boys.)

FROM:

8. Narrow generalizations in regard to moral qualities

9. Emotional patterns loosely organized in expressive attitudes

10. An intense interest in practical activity, manipulation, and observation

11. An interest in exploring the immediate social environment

12. Reflective thinking distorted by childish wishes and desires.

13. Solving simple problems demanding little more than observation and manipulation

14. Lacking confidence in problem-solving ability

TO:

A clarification of continuously developing wider ideals, and a tendency to mental manipulation of these new moral ideals and attitudes, along with deep concern for such concepts as honor, democracy, humanity

Patterns becoming more definitely organized in harmony with personality drives, with perhaps a development of insight into own reactions and a conscious effort to remold personality in harmony with newly acquired ideals

Wider understanding of, and interest in, what is learned from reading and listening

The intellectualization of the wider social environment and the feeling of a close relationship with it

Relatively objective reflective thinking

Solving of problems through reliance to a greater extent on the formulation of hypotheses, and the submitting of them to practical tests

A growing confidence in and willingness to use the scientific method of solving problems in general

SUMMARY

We have seen that any single method of studying the adolescent is seldom used exclusively. Often the case worker uses all of them at certain stages of the process. Group-study methods are frequently supplemented by interviews and even case studies. The wise teacher will use every means at his disposal to gain an understanding of his students. The day-by-day contacts in the classroom, the laboratory, and the playground are potentially most valuable. But the teacher must bring to them a sympathetic understanding of the problems of youth. He must be a student of adolescent development. He must utilize whatever methods he can to make the school an effective instrument in helping young people to grow up in a confused society, that is, in spite of the confusion, attempting to realize democratic values. The curriculum, the cumulative record, the performance on aptitude, special ability, and attitude tests, as well as more informal contacts are all valuable to the teacher who approaches the problem of teaching intelligently and constructively. He cannot rely exclusively upon the expressed or felt needs of his students, for the most cursory survey of the literature reveals that the student is frequently completely unaware of the stresses and strains which are blocking his development. Neither can he rely exclusively upon generalizations about adolescent behavior, for each of his students is a unique, distinctive personality. He may, however, find clues in such generalizations that will help him to meet his own problems.

The implications of these findings concerning adolescent development for guidance and curriculum making will be developed in later chapters.

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PART II

DETERMINING THE GENERAL STRUCTURE OF THE CURRICULUM

THE SUBJECT-CENTERED CURRICULUM AND ITS IMPROVEMENT

THE NATURE OF THE CURRICULUM

THE ACTIVITIES THAT ARE PROVIDED FOR STUDENTS BY THE school constitute its curriculum. It is by means of these activities that the school hopes to bring about changes in the behavior of students. What these changes in behavior are is determined by the philosophy of the school. If the school is regarded principally as a conserving agency, it will plan its program so that students behave in ways that are consistent with the cultural heritage. If it conceives its role in terms of promoting the interpretation and refinement of our democratic way of life, it will seek to provide the kinds of activities that are designed to develop in students the understandings, attitudes, abilities, and skills that it believes will bring about such interpretation and refinement. In previous chapters, the various current philosophies were examined. The development of an appropriate philosophy is held to be one of the most significant tasks of the school. But without implementation a philosophy is dead. Really, the test of the philosophy is to be found, not in the statement itself, but rather in the way in which it becomes incorporated in the behavior of the students. It follows, then, that the activities which the school provides are actually the heart of the high-school program. In this and succeeding chapters, this problem will be dealt with critically. Our present task is to examine the most time-honored and prevalent conception

of the curriculum, which holds that student activities are to be determined and organized upon a subject-centered basis.

WHAT IS A SUBJECT? A subject, reduced to its simplest terms, is merely a convenient way of organizing race experience to make it effective for use in interpreting new experiences. When we speak of the organization of race experience, we refer to the system into which the various race experiences fit. This system is built by the specialist and is by its very nature characterized by logical relationships. For example, the facts, fundamental laws, and principles which form the basis of the subject of physics have been painfully and laboriously accumulated for many centuries, each scientist beginning where his predecessor stopped, discovering new problems, testing, and verifying, and finally fitting the new discovery into a logical system. Sometimes the newly discovered facts or principles will overthrow the existing system, in which case a new one must be built which forms a better structure for the classification of knowledge. For example, the experiments of Torricelli, Pascal, and others with the rise of liquids in exhausted tubes led to the important discovery of atmospheric pressure. Before this time, the rise of liquids in exhausted tubes had been explained by saying that "nature abhorred a vacuum." The newly discovered facts and principles had to be classified in relationship to the general laws of pressure and weight in liquids and finally to the kinetic theory of gases. The important point to consider in this connection is that the essence of the subject of physics is *systematic organization*. One has only to examine any modern textbook in physics to see how closely this type of organization is followed. Other systems of knowledge such as chemistry, astronomy, and the like, are all characterized by the accumulation of facts and principles organized into a system.

In fields other than science, the general basis of organization is the same. In geography, the system may be developed around the "earth-round" concept, regionalism, or a number of other unifying ideas, but essentially the result is the same. The subject is organized in terms of the relatedness of the material, rather

than in terms of the order of experiencing. In history, the organization is usually chronological, though the treatment of the precise order in which events occurred may be subordinated to large related movements or epochs. This is but another way of building a system. Again the principle involved is the same. In mathematical subjects, the situation is not essentially different. The theorems of geometry all fit together into a related whole, which is determined, not by caprice or individual experiencing, but by logical relationships determined by the specialist and the nature of the subject itself.

These logical systems of knowledge have been taken over by the school and utilized as the subject matter of learning. This means that the material must be simplified in terms of the ability, maturity, and experience of the learner. It has to be made available for large numbers of students of varying abilities and interests. The textbook has served as the most approved instrument for simplifying, illustrating, and adapting the subject-centered curriculum to the learner. It has been regarded as the connecting link between the present ongoing experience of the student, and the highly perfected organization of race experience. The important thing to remember is that the present experience of the learner is subordinated to organized race experience. The idea of the textbook maker and the teacher is to "psychologize" the subject matter in such a way that the student learns it effectively. The test of the success of teaching is whether or not the student eventually masters the system and can use it in interpreting present and future experiences. It is fair to say that many high-school students are not able to use the system effectively. To them it remains external and dead.

ARGUMENTS FAVORING THE SUBJECT-CENTERED CURRICULUM

Why has the subject-centered curriculum gained such widespread acceptance in the high school? Why has the so-called direct experience curriculum made so little headway in curriculum development? There are a number of reasons for this

situation which cannot be ignored by the curriculum maker. Some of the more important of them are analyzed in succeeding sections.

SYSTEMATIC ORGANIZATION IS ESSENTIAL TO THE EFFECTIVE INTERPRETATION OF EXPERIENCE. Just as the scientist utilizes systematic organizations of facts and principles as tools for making new investigations and discovering new meanings and applications, so the individual interprets his present experience by relating it to concepts, generalizations, or principles that have been built up by the race. The meaning of a present experience is never fully understood until it is effectively related to other experiences, both individual and racial. Current events get their full meaning only in terms of an appropriate historical context. The child does not fully understand the simple experience of touching a burning candle until the meaning of "burning" is understood. When this is seen as an example of oxidation that goes on in a wide variety of ways, the experience takes on many new meanings that are effective in controlling and interpreting new experiences. In this way, a system is built up that has the optimal predictive values. The proponents of the subject-centered curriculum hold that these ready-made systems are necessary for the interpretation of experience. The individual cannot possibly discover the connections himself. Hence, ready-made organizations conserve time and energy, and serve as guides to future experience. It isn't likely that the student will be able to work out for himself a better system of organization. Therefore he had better be taught to use the one that the race has worked out. So runs the argument of the proponents of the subject-centered curriculum.

THE ORGANIZATION OF THE SUBJECT-CENTERED CURRICULUM IS SIMPLE AND EASILY UNDERSTOOD. The scope of the curriculum is usually defined as the areas or functions of living which are explored. It is the entire range of activities which the school utilizes for the purpose of achieving

its objectives. When subjects are rejected as the basis of curriculum organization, the problem of determining scope is a very difficult one. Under a subject organization, it is merely a matter of deciding what subjects are to be offered. In practice, this usually involves grouping those subjects that are thought to be indispensable to all students together as constants, and other subjects that are offered to meet special interests or needs of students as electives. For example, English and physical education would in most schools be regarded as constants while Latin and French are on the elective list. In order to simplify further the curriculum pattern, many schools have arranged their offerings in groups (sometimes referred to as curriculums) of subjects in terms of specialized purposes of students, e.g., college preparatory, commercial, industrial, scientific, or general. Within these patterns the separation between constants and electives is, of course, maintained. Thus, in small compass, the total scope of the curriculum is schematically presented.¹

The problem of sequence, by which is meant the order in which experience (or subject matter) is presented to students, presents few difficulties for the subject-centered curriculum maker. National committees and textbook makers have, in general, solved the major problems in this field. While there is considerable variation, the sequence of subjects within areas is fairly constant. For example, in the area of science, subjects usually appear in the following order: general science, biology, physics, and chemistry. In the social sciences, world history (one or two years) usually precedes economics, sociology, or problems of democracy. In many states, American history is required by law in the eleventh year of the senior high school. These sequences are justified on the grounds that background is needed for the understanding of current problems. In mathematics, simple algebra or general mathematics, usually precedes plane

¹ See the *Report of the Committee of Ten on Secondary School Studies*, New York, the American Book Company, 1893, pp. 37-47 for an interesting illustration of the way scope and sequence are determined. The reader will be struck with the similarity of programs of studies submitted by the committee and those of present-day schools. The pattern set by the committee has persisted with only slight modification for half a century.

geometry, which in turn always precedes solid geometry or trigonometry. These illustrations are intended to show the relatively simple manner of determining sequence in the subject-centered curriculum. It is merely a matter of arranging predetermined blocks of organized subject matter. Since these blocks are relatively self-contained, any block may be shifted easily without disturbing other blocks, if existing arrangements do not prove satisfactory.

Within a given subject, the scope and sequence is largely determined by the textbook maker. He decides what generalizations, problems, facts, and information are appropriate to the subject and the order in which they are to be presented. Frequently the textbook writer has been guided in this task by scientific studies of vocabulary, reading comprehension, student maturity, and the like. At any rate, scope and sequence are clearly determined in advance of classroom teaching. In schools that have developed courses of study, the situation is practically identical. The course-of-study maker, utilizing the same sources as the textbook writer, prescribes the general scope of the subject and the order in which the subject matter is to be presented.

This discussion has, of course, oversimplified the problem of scope and sequence as it is solved in the subject-centered school. It is not easy to select the most appropriate textbooks, and there are knotty problems involved in determining which subjects shall be required, which elective, and for what group of students.

In a well-organized subject-centered school the teacher fits neatly into the system. He is guided by the program of studies, with scope and sequence clearly outlined, and a course of study or textbook which, in his specific field, prescribes the ground to be covered (scope) and the order in which subject matter is to be presented to students (sequence). Of course, not all of his problems are solved. He must decide how best to present the material, what supplementary materials are to be utilized, whether to organize the material upon a day-to-day basis or for a longer period of time, and other important questions. The essential point to keep in mind is that the basic structure, or

framework, is predetermined. Actual classroom instruction must fit into this general structure.

For the student, the scheme is also clear and intelligible. Having determined the "curriculum" he wishes to pursue, he may readily see the task before him. Sixteen units for graduation, a given number of which are required, define his program. As he "passes" courses, the appropriate units (usually defined as a subject pursued for a year with five class meetings per week) are duly recorded. If he has the misfortune to fail a unit, the difficulty can be remedied by "making it up," without disturbing the general pattern of units which he has "passed."

Since the subject matter is largely predetermined, there are few decisions that have to be made by the student in the day-to-day work of the classroom. He receives his assignments of the ground that he is to cover and if the teacher is clear about this, he knows each day what tasks are to be done and he can budget his time accordingly. Homework is facilitated by definite assignments from the text or workbook.

Thus we see that in essence the subject-centered curriculum by its very simplicity facilitates the development of a smoothly running organization which is easily understood by administrators, teachers, students, and their parents. Its very simplicity is undoubtedly one of the factors that has led to its acceptance and perpetuation.

THE SUBJECT-CENTERED CURRICULUM IS EASILY CHANGED. In most schools, the curriculum is "revised" by rearranging the blocks (units or subjects), by adding or dropping subjects, and by adopting new textbooks. Thus, the staff may decide that chemistry should precede physics, that "consumer science" should replace physics for non-college-bound students or that Latin be no longer required for college-bound students. New subjects such as pre-flight aeronautics, conservation, safety education, and consumer education may be readily added. Usually these new subjects are made elective so that it is not necessary to drop other subjects. Statistics gathered during the past few decades show that few subjects are dropped

once they get established in a school, and that new subjects have been added at a rapid rate. New subjects have increased high-school offerings at least five-fold during the past two decades. The ease with which additions may be made is apparent. If it involved laborious examination of the entire offerings of subjects and content within subjects, fewer additions would be made; but since usually this is not done, subject offerings increase by leaps and bounds with a minimum of disturbance and confusion. When textbooks have been in use for the period prescribed by law or by a ruling of the board of education, it is a simple matter to select new ones upon a district, or state-wide basis. In this way the subject-centered curriculum is kept relatively up-to-date.

THE SUBJECT-CENTERED CURRICULUM IS EASILY EVALUATED. Since the principal concern is covering ground prescribed by courses of study or textbooks, the evaluation program is centered upon the determination of mastery of the subject matter. Each segment (unit, course, or subject) has its own peculiar demands and these are met through standardized tests, essay-type examinations, and the like. In some cases, uniformity on a city or county-wide basis is secured through the functioning of committees of teachers who prepare the final examinations, or by standardized tests prescribed and administered by the administrative staff. State-wide scholarship tests further promote uniformity for they are usually based upon the textbooks or courses of study most commonly used. Teachers are loath to depart from the textbook lest the students fall down in the tests.

THE COLLEGES HAVE GENERALLY APPROVED AND PERPETUATED THE SUBJECT-CENTERED CURRICULUM THROUGH ADMISSION REQUIREMENTS. Traditionally, students have been admitted to college upon the basis of units or credits in specified subjects or by entrance examinations covering the various subject fields. It is logical that this should be the case, for college curriculums are almost exclusively

subject-centered. The questionable assumption has been made that certain patterns of units are essential background for successful achievement in college. Naturally high-school principals desire earnestly that their graduates succeed in college. The best way to insure this success is to meet fully the demands of the colleges as to desirable patterns of units. High-school programs of study show clearly this influence. If a high school can offer only a small number of subjects, the demands of the colleges are met first, even though only a small percentage of students may attend college.

In general, the colleges resist accepting subjects such as general science, general mathematics, general language, and the like, for the fulfillment of college-entrance requirements. The practical arts and vocational subjects have also been looked on with suspicion, especially by certain of the Eastern colleges. This attitude has tended to hamper the development of these subjects and to promote a sharp dualism between the programs of the college-bound student and his fellow who completes his formal education in the high school. The colleges have also offered resistance to the acceptance of credit in "fused" or "core" courses. It is not unusual for schools that have unified English and social science in terms of a single course, to have to "unscramble" them to conform to the requirements of the colleges for specified numbers of units in English and history. Progress is being made along this line, but the fact still remains that the colleges are a potent influence in maintaining the status quo of the high-school curriculum.

THE SUBJECT-CENTERED CURRICULUM IS GENERALLY APPROVED BY TEACHERS, PARENTS, AND STUDENTS. Since the subject-centered curriculum is in use almost universally in high schools, colleges, and universities, it follows that teachers and parents are products of this system of education. High-school teachers, as has been discussed previously, have been trained specifically to teach one or more subjects. This means that in college they have built up "majors" in these fields by means of sequences of specialized, logically

organized courses. To these have been added "special methods courses." The prospective teacher is, therefore, equipped to go into the high school and teach specific subjects. They do have some background in modern psychological and educational theory, but this is usually at variance with their academic preparation and their student teaching, which is almost inevitably carried out in a conventional subject field. As stated before, they discover that their preparation fits well into the program which they find in operation in the schools in which they secure jobs. The pressure of this practical situation makes impossible the functioning of the theory of the way learning takes place and the way learning experiences should be organized, and the teacher readily and happily accepts the subject-centered system as unavoidable and even desirable. In like manner, since all of the formal education of parents, and generally of students, has been in subject-centered programs, there is a general assumption that the system is sound and should be continued. They tend to distrust courses labeled "core," "orientation," or "general education" as passing fancies and frills. They are apt to regard trips, excursions, student planning, projects, and the like, as conducted tours or entertainments which are amusing, but through which little is learned. The covering of ground in a textbook and the mastery of the subject matter contained therein is more tangible and more in keeping with the conception of real learning to which parents and students are accustomed.

ARGUMENTS AGAINST THE SUBJECT-CENTERED CURRICULUM

In spite of its universality, its general acceptance by the colleges, parents, teachers, and students, and its respectability in terms of the cultural heritage, the subject-centered curriculum has been under fire for some time and many successful attempts have been made to improve it. Some of these are within the patterns of "subjects" while others break more or less completely with the traditional conceptions of curriculum organization. Before discussing these changes, let us examine in some detail the

general criticisms that are being made of the subject-centered curriculum.

THE SUBJECT-CENTERED CURRICULUM IS PSYCHOLOGICALLY UNSOUND. It would be absurd to deny the value of systematized race experience as a vital and necessary instrument for educating the student. Such organization is the result of the struggle of the human race toward civilization. Without these formulated race experiences, man would be little better than the lower animals because he would not be able adequately to profit from the experiences of the past. Education is essentially a process of growth. Starting from a world that William James characterized as a "blooming, buzzing, confusion," the child gradually extends his experiences, both first-hand and vicarious, to the point where he is able to weave unity and consistency into his world. He gradually brings order and system into his life. In this task, race experience is invaluable. He draws upon subject matter to solve his problems, meet his needs, and extend his interests. From the time he builds block houses on the floor, to the establishment of a home of his own, he is drawing heavily upon the experiences of the race. Very early in life, simple stories and pictures of the way other people live help him to understand better his own home. Gradually as he develops more and more skill in reading, he extends the range of his environment. He builds new concepts of "houses," "homes," and "family life." As he is confronted with problems, he is helped to meet them by finding out how others have solved similar problems. As he becomes more mature, he is able to use race experience more and more effectively. Gradually he comes to the point where systematic treatments of science, mathematics, social science, art, are the most effective tools he can use in solving the problem of establishing his own home. He draws from these systems of knowledge to plan, build, and finance his home. His intellectual and aesthetic values are re-created through the constant use of organized subject matter. He has reached the stage in which the psychological and the logical become one and the same thing. But note that direct,

first-hand experience is always antecedent. Organized subject matter is the instrument for enriching and extending it. It is not the end, or the goal. The goal for the student is the resolution of tensions, the solving of problems, the satisfaction of needs which grow out of the interaction of a living, dynamic, purposing organism in an equally dynamic environment.

There is an exceedingly wide gap between the experience of the child and the logically formulated experience of the race. This means that while logical relationships are essential in the organization of experience, they cannot be imparted ready-made to the child, as John Dewey pointed out many years ago and is equally applicable today. He stated: "Facts are torn away from their original place in experience and rearranged with reference to some principle. Classification is not a matter of child experience; things do not come to the individual pigeonholed. The vital ties of affection, the connecting bonds of activity, hold together the variety of his personal experiences. The adult mind is so familiar with the notion of logically ordered facts that it does not recognize—it cannot realize—the amount of separating and reformulating which the facts of direct experience have to undergo before they can appear as a "study" or branch of learning. A principle, for the intellect, has to be distinguished and defined; facts have had to be interpreted in relation to the principle, not as they are in themselves. They have to be regathered about a new center which is wholly abstract and ideal. . . . The studies classified are the products in a word, of the science of the ages, not of the experience of the child."²

The difficulty with using this ready-made organization of race experiences has been emphasized by so many writers that we need only to mention it briefly here. There is the ever-present danger that the learning which results from such organizations is apt to be what is popularly called "book learning." The students learn symbols: words, without having back of them meaningful experiences. They learn to recite definitions from the textbook glibly, without having the slightest notion of their

² John Dewey, *The Child and the Curriculum*. Chicago, University of Chicago Press, 1902, pp. 10-11.

real meaning. A striking example of this point is found in the familiar story of the failure of many students living in a certain city located on the Mississippi River, to make any connection whatever between the Mississippi River about which they studied in their textbooks and the stream of water which flowed past their doors. The textbook study evidently had failed to function in the life and experiences of the student. Even though he learned to recite the material to the complete satisfaction of the teacher, he merely acquired verbal knowledge which was soon forgotten because it failed to function in experience. In a real sense it served effectively to separate the student from his world.

Such is the indictment against the logical organization of subject matter. Society has sought to transmit the experiences of the race in the form of a definite logically organized curriculum with the result that the gulf between the growing child and society has become wider and wider as race experience, because of the increasing complexity of civilized social life, makes adult activities more and more remote from the experiences of childhood.

Even though it is recognized in the light of the newer psychology that such systematized knowledge is often far from experience, particularly of adolescence, yet this is very different from saying that such knowledge cannot be made to function in experience through proper treatment. Race experience cannot and need not be ignored. Through the student's ability to use language, experience remote in time and place can be made vital. "Book learning" deserves all the scorn and ridicule which it has received, but the remedy lies along the line of vitalizing race experience rather than discarding it. Thus logical organization properly utilized implies not only an educational ideal of a remote future but is very significant in determining a direction which the educative process should take. It becomes, as Dewey points out, a guiding principle for dealing with the present development of the student's experience. It affords a guiding principle in interpreting and giving direction to the activity of the student. In succeeding chapters we shall attempt to show more clearly how this may be accomplished.

THE SUBJECT-CENTERED CURRICULUM IS REMOTE FROM THE DEMOCRATIC VALUES THAT THE MODERN SCHOOL SEEKS TO ACHIEVE. Even though we grant the merits of logical systems of knowledge in helping the student to meet his problems, and eventually to refine his own conceptual system, it must be emphasized that this value is not achieved directly but rather through helping the student to use race experience effectively. The center of orientation is *the student and his world* rather than the refined system of knowledge of the world of adults. The democratic school is seeking to build characteristics of personality such as creativeness, cooperativeness, social sensitivity, ability to think reflectively, and tolerance. These values are best achieved when the actual vital experience of the student in living his life in the home, the school, and the community is made the center of his curriculum. To attempt to achieve them by centering exclusively upon accumulated race experience tends to promote mere verbalism and frequently to set up a dualism between the life of the student and the work of the school. Achieving democratic values is a matter of living them, and of reflecting upon the experiences that are being lived.

One reason why so many very good statements of democratic objectives have failed to influence practices is because the school has adopted these values but has failed to change the curriculum in order to use the most effective means of achieving the ends. It associates thinking with the mastery of facts on the plausible grounds that facts are needed with which to think. It approves highly of social sensitivity, cooperativeness, and tolerance as ends but assumes that ideas about them will take effect in conduct without actual living experience. The time-worn analogy of the correspondence course in swimming applies here. Each is likely to be equally ineffective.

THE IMPROVEMENT OF THE SUBJECT-CENTERED CURRICULUM

Those, who by disposition, training, and experience are partial to the subject-centered approach to curriculum making will

probably feel that the writer has not been fair to this time-honored, and generally accepted basis. Admittedly, for purposes of exposition, the traditional subject organization has been the center of the discussion up to this point. And certainly those who are familiar with actual school practice will be quick to admit that the picture has not been overdrawn as the subject-centered curriculum works out in vast numbers of schools. It would be a mistake to assume, however, that many improvements that tend to minimize the difficulties are not now underway. Some of the more radical of these will be discussed later under the broad-fields and unified-studies type of organization. These are still regarded as subject-centered but give a much more significant place to the first-hand experience of students. Our present purpose is to discuss briefly some illustrations of the vitalization of subjects as such.³ These illustrations are typical trends, the counterpart of which are probably to be found in all fields. The reader will be able to supply additional illustrations in his own field of specialization.

MATHEMATICS. During recent years, plane geometry has been vastly improved through the "nature of proof" concept that has been pioneered by Harold Fawcett,⁴ and worked out in the Ohio State University School. Instead of stressing the conventional theorems, he develops the nature of proof, particularly the place of definitions and assumptions in relation to the conclusions that are reached. Students are taught to be critical concerning radio and newspaper advertising, the sermons that they hear, the articles that they read, and in their discussions with their fellows. Subject matter is drawn from the daily living of the student. He comes to see that the methods of the mathematician and of the scientist may be generalized to apply to all aspects of living. Evidence tends to show that when geometry is

³ For other illustrations, see H. H. Giles, et al., *Exploring the Curriculum*. New York, Harper and Brothers, 1942, pp. 61-68, and *Learning the Ways of Democracy*. Washington, Educational Policies Commission, 1940, Chapters II and III.

⁴ *The Nature of Proof*. New York, Bureau of Publications, Teachers College, Columbia University, 1938.

taught in this manner, significant changes in behavior take place in the student. He learns to analyze evidence, distinguish facts from assumptions, recognize both the stated and unstated assumptions that are essential to a given conclusion, evaluate assumptions, and evaluate arguments. Finally, he learns "constantly to re-examine the assumptions which are behind his beliefs and which guide his actions." Procedures similar to this were followed in a number of the schools of the *Eight-Year Study*.⁵ Students who were so trained in exact thinking apparently did somewhat better work in college mathematics. This indicates clearly that wide departures may be made in conventional practice without impairing the chances of college success.

CHEMISTRY. The field of chemistry is another area in which significant changes have taken place. A recent textbook,⁶ the subject matter of which was worked out experimentally in certain of the Denver, Colorado, high schools by the authors, breaks almost completely with the conventional logical organization. It is organized in terms of units centering around (1) the Chemistry of the Individual, (2) Chemistry of the Home, (3) Chemistry of the Community. Typical units under the first classification are (1) drugs and medicines, (2) cosmetics, (3) clothing, (4) chemical hobbies, (5) vocations relating to chemistry. First-hand experience of students is drawn upon throughout the treatment. That the authors are not willing to break completely with conventional logical organization is evidenced by the fact that the first ninety-three pages of the text are given over to the "essentials of chemistry." In a sense, of course, the total arrangement of the book is just a newer kind of logical organization.

SOCIAL SCIENCE.⁷ Perhaps the social science field has undergone more extensive reorganization than any other. Instead

⁵ See Dean Chamberlin, et al., *Did They Succeed in College?* New York, Harper and Brothers, 1942, pp. 30-31.

⁶ Maurice R. Ahrens, Norris F. Bush, and Hugh K. Easley, *Living Chemistry*. Boston, Ginn and Company, 1942.

⁷ See "the Role of the Social Sciences in the Secondary-School Program." *Bulletin of the National Association of Secondary-School Principals*, XXIX

of the conventional course in the principles of economics, South Pasadena offers a semester course entitled "Current Economic Problems" which deals with such problems as "How may I become an intelligent consumer?" "How can we raise our level of living through improved production methods?" "Why is it necessary for the Government to step in and regulate business?", "How does the Government foster the development of American Industry and Agriculture?" and "How may we make our savings work?" In Tulsa, instead of the conventional course in American history, a course entitled, "America, Today and Yesterday" is given. The following problem areas are included, (1) Democracy Engages in Social Reform, (2) Democracy Engages in Social Conflict, (3) Economic Revolution Overtakes Democracy, (4) Democracy Establishes a World Power, (5) Reforming Democracy—the Progressive Era, (6) Mobilization to Make the World Safe for Democracy, and (7) Democracy Again Engages in Social Reform. It is evident that there is a general chronological sequence in the above list of "problem areas," but conventional logical structure would appear to be subordinated to a more functional treatment of problems of contemporary living.

In Moultrie, Georgia, the teacher and students outlined a number of basic problems for which they wanted to find solutions. These included the following:

1. What are the services of the city, county, state, and national governments?
2. What are the obligations a citizen owes to his local, state, and federal governments?
3. What are some of the most important social problems found in our community?
4. Has the course opened for you any new opportunities for understanding how better to make a living in Moultrie?
5. During our excursions into the community, has your attitude toward the school changed at all? ^a

(February, 1945). The entire issue is devoted to the problem of improving social studies instruction.

^a Reported by Samuel Everett in *General Education in the American High School*, North-Central Association of Colleges and Secondary Schools. Chicago, Scott, Foresman and Company, 1942, pp. 226-227.

On the face of it, this list of problems does not seem much different from the ordinary textbook course in civics. It does, however, differ significantly from such courses in at least three respects. First, it was cooperatively planned; second, it was oriented directly in terms of the life of the student in his community; and third, its subject matter consisted largely of first-hand study of the institutions, agencies, and organizations of the community itself. In all, some twenty organizations were visited by the class and studied intensively in terms of their contributions to the life of the community.

HOME ECONOMICS. In the field of home economics, the conventional courses in sewing and cooking are being subordinated to courses dealing with practical problems in home living. One such course is composed of the following units: "(1) Our homes of yesterday and today, (2) Founding a home, (3) Maintaining a successful home, (4) Making the most of oneself, (5) Providing for the advancement and higher life needs of the family, (6) Making good use of our time, (7) How the home and community are related, (8) Keeping the family in good health, (9) Our part in the community health program, (10) Caring for the patient in the sickroom, (11) How heredity and environment influence the child, (12) Caring for younger children, (13) How the child grows and develops, (14) Educating our children, (15) Our responsibility to all children, (16) Planning and furnishing the home, (17) Caring for our home, (18) Selecting and caring for the equipment of the home, (19) Good housing for all, (20) Using the family income, (21) Better buymanship in the home, and (22) Laws that affect the home."⁹

The author states that the above units are divided into problems, each of which becomes a lesson. Enrichment is secured by the introduction of concrete experiences of students. This is an example of a teacher-planned program, which retains most of the elements of logical structure that are characteristic of the

⁹ Reported by Mrs. Lucile Rust, "The Home Living Course in the Secondary School," *Bulletin of the National Association of Secondary-School Principals*, XXIV (December, 1940), 62.

subject-centered curriculum. The material, however, has been oriented in terms of the problems likely to be faced by the student.

INDUSTRIAL ARTS. In the field of industrial arts, similar reorganization in terms of the practical problems of living is taking place. The traditional system of building skills by the introduction of increasingly difficult operations arranged sequentially, is yielding to a project or problem approach that is oriented to the needs and problems of the individual student. The general shop provides for orientation into a wide variety of industrial processes, and the use of various media, such as leather, textiles, ceramics, metal, plastics, and the like. The war accelerated the trend toward the adaptation of the program to the needs of students in this field. Model-plane building, shop mechanics, power machinery operation, etc., have come rapidly to the front. This movement has also tended to stimulate co-operation with other areas such as science and mathematics in the giving of courses in preflight aeronautics, radio, and electricity.

ENGLISH. An illustration of how the field of English has reached out into other areas in order to break down the traditional organization of composition and literature, and to provide vital experiences is reported by Principal H. A. Ferguson of the Montclair, New Jersey, High School:

A sophomore English class was set up on somewhat of an experimental basis. With two periods available each day, these pupils have had special opportunities to go to the museum, to visit other classes in the school as an aid to the choice of next year's subjects, and to hear talks by teachers and outsiders on various topics. Each pupil has a ten-week period of using Mondays for a project of his own choice on which he later reported to the group. Model planes, boats, and catapults were made in the shop; a lamp and a dress were made. One girl got a start on typewriting; several read books they had missed. A group worked together to give a scene from *Clarence*, while a smaller group worked on photography within and without the school. A project was carried through on the general subject of

War. Through it, the pupils began to see what discussion is, what propaganda is, and that some issues are too big for final decisions.¹⁰

This course would seem to illustrate the complete abandonment of logical organization. There is no apparent thread of continuity which is to be found in most subject-centered courses. It illustrates also how one field draws heavily upon many others. When a course reaches out into as many diversified areas as this one appears to do, "English" becomes merely a convenient label rather than a category that defines the scope and sequence of the experiences that are included.

OTHER FIELDS. No attempt has been made in this rapid survey of innovating practices in subject-centered curriculum to cover all of the subjects. Similar illustrations could be given in the field of modern languages where in some quarters there is a tendency to subordinate the actual learning of a language to the understanding of a culture and its relationship to other cultures.¹¹ Fine Arts courses have been broadened to include work in a wide variety of media, and many have lost their systematic character that was common a few years ago. Health and physical education programs are beginning to stress personal hygiene, from both the physical and mental standpoint, nutrition and diet, remedial instruction, and the like. Many have lost their formal character.

The discussion up to this point has been concerned almost exclusively with the subject-centered curriculum, its essential character, and the various ways in which it is being changed. The discussion of changes has been limited to those that still retain the subject as the basis of organization. We now turn to the trend toward the breaking down of subject boundaries both within fields and among the various fields.

¹⁰ *Bulletin of the National Association of Secondary-School Principals*, XXIV (October, 1940), 73. This number is devoted to "Promising Practices in Secondary Education." It is invaluable as a general survey of newer practices.

¹¹ Walter V. Kaulfers has been a pioneer in this movement. See his brief article entitled "Cultural Unification as a Foreign Language Objective." *Curriculum Journal*, XIII, 323-324 (November, 1942).

THE BROAD-FIELDS CURRICULUM

Like many other terms in education, "broad fields" has been given a number of interpretations. To some, it means the grouping of the students' curriculum experiences around major areas of living, or as Hopkins¹² puts it, "major trunk lines." As an illustration of this procedure, Harap's classification will serve. After a thoroughgoing analysis of possible major categories for curriculum organization, he proposes that curriculum experiences be grouped around the following headings. (1) Living in the Home, (2) Leisure, (3) Citizenship, (4) Organized Group Life, (5) Consumption, (6) Production, (7) Communication, (8) Transportation.¹³ In practice, such "areas of living" have been used as a technique of curriculum making, rather than as a basis for organizing the curriculum. In other words, after analyzing and classifying curriculum experiences in terms of these major categories, they are regrouped in terms of conventional subject fields. Thus, while these categories may serve to enrich subjects, they are not, in any strict sense, a basis for organizing the curriculum. Especially is this true in the senior high school, where subjects are more firmly entrenched. This trend toward utilizing areas of living in curriculum development is part of a movement to discover ways of organizing curriculum material that are more closely related to the problems, interests, and needs of the student, and of the culture. In Chapter VII an analysis and evaluation of this trend will be made.

"Broad fields," as the term is interpreted in the present context, is restricted to refer to the uniting or "fusing" of separate subjects within a given subject-matter field. A common example of this type of organization is general science, which frequently contains elements of physics, chemistry, biology, anthropology, physiology, and the like, often depending upon the interests of those who organize the course. Broader, more inclusive topics

¹² L. T. Hopkins, *Integration: Its Meaning and Application*. New York, D. Appleton-Century Company, Inc., 1937, Chapter XI.

¹³ Henry Harap, et al., *The Changing Curriculum*. New York, D. Appleton-Century Company, Inc., 1937, p. 96.

are utilized than is the case in a particular science subject. For example, the treatment of a topic such as water in a physics course might be limited to hydraulics. In a general science course, it would deal not only with pressure, density, and the like, but also with its chemical properties, its role in plant and animal life, its effect upon man and his environment. Such general science courses have long been regarded as appropriate to the lower grades of the high school. More recently, courses have been organized in the senior high school which do not differ materially in organization from the more elementary courses. Sometimes these courses are labeled "general physical science." In most schools they are regarded as more suitable for the non-college-bound student.

From the conception of organization set forth above, it is only a step to the attempts that are being made to secure a similar unity among all of the subjects of the curriculum. The Ohio State University High School for a number of years organized its curriculum in six broad fields as follows: (1) Science, (2) Mathematics, (3) Social Science, (4) Language, (5) The Arts, and (6) Health and Physical Education. Through group planning an attempt is made to secure a unity within each of these fields. Elementary teachers are included in the planning groups. In some cases, this has resulted in an almost complete obliteration of separate subject-matter lines within fields. In others, the lines have become distinctly blurred, as for example, the boundaries between algebra and geometry. The core has also contributed further to the disintegration of subjects.

The University of Wisconsin High School a number of years ago adopted the broad fields of Health, Community Living, and Use of Leisure and Vocation ¹⁴ as a basis of organization. The plan was never fully worked out, however, and the categories tended to serve as centers for grouping subjects. The John Burroughs School grouped its senior high-school offering in six categories as follows: (1) Arts, (2) Science and Mathematics, (3)

¹⁴ This list was originally proposed by the North Central Association. See L. W. Webb, ch. High-School Curriculum Reorganization. Ann Arbor, The North-Central Association of Colleges and Secondary Schools, 1933.

Social Studies, (4) Vocations, (5) Language, and (6) Physical Education. Note that all of these fields, with the possible exception of "Vocations," are familiar subject classifications, though the content may differ materially.

Why this trend toward the broad-fields curriculum? It is clearly a trend toward a more functional, unified conception of the learning process. That many educators erroneously applied the term "integrated courses" to broad-fields programs is an indication that such courses were intended to break down the watertight compartments between conventional school subjects. In other words, the trend toward regarding the student as a whole, and all knowledge as having significance for learning, inevitably leads to greater unity in the curriculum. The broad-fields program is just a step in the disintegration of separate subjects. The teacher who is sensitive to the social implications of the subject which he teaches and to the nature and needs of the learner finds great difficulty in staying within his subject. But the problem cannot be solved satisfactorily by one teacher alone, or by all the teachers of a school working independently and exclusively within their respective subjects. If a truly functional broad-fields program is evolved, it must be through the active cooperation of the entire teaching staff. In other words, it must be the result of a comprehensive study of the entire school curriculum. Otherwise, it becomes merely a new label to put on old subject-matter content.

It is apparent from the above discussion that there is a distinct trend toward broadening the scope of subjects and making them more functional. This tendency has not stopped with the unification of the various subjects within a given field, but has extended to the disregarding of the boundaries among the various fields. This movement has, for the most part, been identified with the core curriculum and will be discussed in a succeeding chapter.

SUMMARY

The subject-centered approach to learning is almost universally practiced in the American high school. It has been assumed that

logically organized race experience is a satisfactory basis for organizing learning experience. It has persisted in spite of its psychological shortcomings, and its relative ineffectiveness in contributing to democratic purposes, because of the prestige of science, the endorsement of the colleges, the simplicity of the curriculum pattern which it provides, and the general approval of administrators, teachers, laymen, and students. Many of its weaknesses tend to be corrected by the breaking down of subject lines, and the inclusion of much direct experience for the purpose of illuminating facts and principles.

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THE EXPERIENCE-CENTERED CURRICULUM IN THEORY AND PRACTICE

THE NATURE OF EXPERIENCE

EXPERIENCE IS A WEASEL WORD, TO THE MAN OF THE STREET it means participation in anything, the actual living through an event, "skill, a facility, or functional knowledge gained through personal knowledge, feeling, or action." To have experience playing golf means actual participation in the game, rather than the mere reading about it in books. It is the difference between "feeling" the club head as it swings "through" the golf ball—or rather the arc in which the golf ball is located, and being told or reading about the proper stance, the arc of the swing, and the like. To the philosophers, experience is the sum total of all knowable reality. It is this wide difference in interpretation that gets us into trouble when we speak of the experience-centered curriculum in contrast with the subject-centered curriculum. Subject matter is refined and organized race experience, and becomes incorporated into the behavior of the individual—that is, becomes a part of individual experience when it is appropriated and used to interpret ongoing activity. Thus, race experience becomes inseparably bound up with individual experience as learning takes place. Reading about the way the professional golfer thinks the club should be swung may really serve to modify the individual golf player's experience. When it does, it becomes an inseparable part of the experience itself.

From an educational standpoint, John Dewey has helped us to arrive at a fruitful notion of experience, and to develop a working conception of it in relation to the school program. In a much quoted and frequently misunderstood passage he states:

The nature of experience can be understood only by noting that it includes an active and a passive element peculiarly combined. On the active hand, experience is *trying*—a meaning which is explicit in the connected term *experiment*. On the passive, it is *undergoing*. When we experience something we act upon it, we do something with it; then we suffer or undergo the consequences. We do something to the thing and then it does something to us in return; such is the peculiar combination. The connection between these two phases of experience measures the fruitfulness or value of the experience. Mere activity does not constitute experience. It is dispersive, centrifugal, dissipating. Experience as *trying* involves change, but change is meaningless transition unless it is consciously connected with the return wave of consequences which flow from it. When an activity is continued into the undergoing of consequences, when the change made by action is reflected back into a change made in us, the mere flux is loaded with significance. We learn something. It is not experience when a child merely sticks his finger into a flame; it is experience when the movement is connected with the pain which he undergoes in consequence. Henceforth the sticking of the finger into the flame means a burn. Being burned is a mere physical change, like the burning of a stick of wood, if it is not perceived as a consequence of some other action.

Blind and capricious impulses hurry us on heedlessly from one thing to another. So far as this happens, everything is writ in water. There is none of that cumulative growth which makes an experience in any vital sense of that term. On the other hand, many things happen to us in the way of pleasure or pain which we do not connect with any prior activity of our own. They are mere accidents so far as we are concerned. There is no before or after to such experience; no retrospect or outlook, and consequently no meaning. We get nothing which may be carried over to foresee what is likely to happen next, and no gain in ability to adjust ourselves to what is coming—no added control. Only by courtesy, can such an experience be called experience. To “learn from experience” is to make a backward and forward connection between what we do to things and what we enjoy or suffer from things in consequence. Under such conditions doing becomes a trying; an experiment with the world

to find out what it is like; the undergoing becomes instruction—discovery of the connection of things.¹

Reduced to its simplest terms, then, experience starts with a dynamic interaction between the organism and the environment. The organism acts and the environment strikes back. When the interconnections are seen, we are said to have an experience. As in the case of the child and the flame, the interconnections are not hard to discover. The experience is a very simple one. But as action becomes more complicated and the environmental aspects become more complex, confusion results and interpretation becomes difficult. When interpretation involves the resolution of doubts or hypotheses by making further observation, by more action, we have "reflective experience," or reflective thinking. We then have a forked-road situation. Action is temporarily blocked. Out of previous experience or additional activity of one sort or another, inferences arise that are tested by further action. We say then that a reconstruction of experience has taken place. *Flame* comes to mean danger, warmth, beauty, and in a more technical sense, oxidation. New experiences with fire are interpreted in terms of the old. Flame becomes a thing that may burn, or that may give enjoyment depending upon the total situation. This is undoubtedly the highest type of learning, and man's superiority in this respect marks him off from the lower animals. Our education program becomes effective very largely to the extent that it fosters this continuous reconstruction of experience.

SOME MISCONCEPTIONS OF THE NATURE OF EXPERIENCE

The difficulty with a good many educational interpretations of experience is that they utilize only one phase of the two aspects of experience as the basis for their theory and program. The early proponents of the "activity curriculum"² placed an

¹ John Dewey, *Democracy and Education*. New York, The Macmillan Company, 1916, pp. 163-164.

² For a complete analysis of the activity concept, see *The Activity Movement*. Thirty-third Yearbook, National Society for the Study of Education. Bloomington, Public School Publishing Company, 1934, Part II.

unduly heavy emphasis upon mere physical activity. If the child were doing something, if he were active, then education was supposed to be going on, and the result was good. To help him to see the connections between his activity and past experience and future action was regarded as adult imposition. Consequently, there sprang up "child-centered" schools in which, for the most part, children decided what they wanted to do. There was almost a complete failure to "undergo," or to use another term, to intellectualize the activities—to discover their meanings. Thus, the securing of appropriate control over subsequent experience was accidental—a matter of chance. To rationalize this failure to help the child to see the full significance of what he did, by the use of appropriate subject-matter elaborate theories of child creativeness were built up. "Follow the lead of the child" became the slogan. Give him a chance to develop and all things will be added unto him. Surround him with books and all sorts of materials such as blocks, paints, tools of all kinds, sand, lumber, sewing machines. One writer put it in this fashion:

Now what happens when a child is not dictated to and is set down with materials such as these? If he is emotionally untrammelled and physically sound so that he can function normally it is safe to say that his use of the material will be creative. Watch a two-year old piling his blocks. If some adult has not ruined his first efforts by showing him how, he quite uncannily arranges them in designs having no small degree of balance and proportion. Leave a little child alone with paints or crayons and large sheets of paper and after a period of random smearing he will begin to draw amazing things, astonishing both in line and color.⁸

This, of course, was an extreme reaction against traditional education which emphasized only one aspect of the nature of experience.

The proponents of the traditional subject-centered curriculum, on the other hand, have stressed the interpretative or undergoing aspect of experience. Events remote in space and

⁸ Agnes DeLima, *Our Enemy the Child*. New York, The New Republic, Inc., 1925, p. 6. See also, Ellsworth Collings, *An Experiment with a Project Curriculum*. New York, The Macmillan Company, 1923. And J. L. Meriam, *Child Life and the Curriculum*. Yonkers, World Book Company, 1920, p. 158.

time, subject matter having little or no relationship to the ongoing life that is being lived, facts and information "torn away from their setting in experience," are imposed upon the child. To be sure, activity is aroused, but it is activity connected with the teacher's purpose rather than activity aroused by the child's own purposes, by his quest for the solution of a problem. Subject matter used in this way, to quote Dewey's phrase, becomes "a mind crushing load."

A REINTERPRETATION OF EXPERIENCE

But to regard the curriculum as an "either-or" proposition is to create a dualism that has no foundation in sound theory or practice. In any complete learning situation, activity and interpretation are always present, though, of course, in greatly varying degrees. Suppose, for instance, we take a typical example of learning in a subject-centered curriculum. In an agriculture class, a boy studies different types of soils, how to improve them through fertilization, drainage, etc., he learns of the kind of soil best adapted to the growth of corn. He learns the different types of corn, their uses, yields, marketable value, the proper time for planting, the appropriate cultivation, the harvesting, the final marketing, and a host of other facts and information that all fit together into a logical system. At appropriate times, the teacher demonstrates, or the student experiments in the laboratory. At all times, the teacher draws upon the former experiences of the student. This was essentially the method of curriculum organization in agricultural education prior to the introduction of the project method in 1911. Contrast this procedure with the actual raising of a field of corn by the student. He selects his plot of ground, his seed, and proceeds through the various stages until the corn is finally marketed. At various steps in the process, he has to draw upon organized subject matter. He cannot even determine the proper soil without some help from race experience. The corn isn't growing properly. What is the matter? He consults subject matter pertaining to diseases, proper cultivation, proper nourishment, and the like, to find a solution for this

problem. What is the essential difference between the two activities? In the first case, *organized subject matter is the center*. Experience is drawn upon to illustrate and vitalize the subject matter that is logically presented. The hope is that it will function in future experience. In the other case, *personal, direct experience is antecedent to subject matter*. The experience has its own logic, its beginning and its end. Subject matter is taken from its place in the logical system into which it has been classified by the specialist and used to enrich and make meaningful the ongoing activity. In the first illustration the boy has learned about raising corn, in the second he has raised corn, and learning is instrumental to that end. The point which should be made is that subject matter and activity are present in both cases. This is why we have termed one kind of curriculum organization *subject-centered* and the other *experience-centered*. Miseducation can result when subject matter is not connected with vital experience, but it can also result when vital personal experience is not connected with appropriate subject matter.

But even though we accept the above generalization, the problem still remains as to which center is best for curriculum organization. Shall actual experience be antecedent, concomitant, or subsequent to subject matter, and what shall be the principle of organization? One answer gives us a *subject-centered curriculum*, the other an *experience-centered curriculum*. In the previous chapter, the *subject-centered curriculum* was explored. We shall now try to find a solution of our problem by a similar exploration of the *experience-centered curriculum*.

BASIC PRINCIPLES OF EXPERIENCE-CENTERED ACTIVITIES

Before making a survey of the present status of the *experience-centered curriculum*, its advantages and disadvantages, it may be well to make the concept more explicit by suggesting certain principles that are pertinent to *experience-centered activities*.

LEARNING (THE ACQUISITION OF ATTITUDES, KNOWLEDGE, SKILLS, ABILITIES, AND THE LIKE) IS USUALLY, IF NOT ALWAYS, INCIDENTAL TO THE ACHIEVEMENT OF SOME MORE OR LESS TANGIBLE OR CONCRETE END OR GOAL. This principle was implicit in the previous illustration of a boy who set about raising an acre of corn, as contrasted with the boy who learned about raising corn from a textbook. In the first instance, the boy's primary purpose obviously was not to learn, but rather to accomplish a very concrete and tangible goal. He probably had in mind a certain yield which might be expected and more specifically the amount of money he should be able to clear on the project in terms of current market trends. The changes in behavior that resulted from his activities are more or less incidental to the activity. This doesn't mean that the learning is not important. Indeed, in the mind of the teacher, it is probably the most important result, for he is trying, through the experience, to bring about more and more control over his environment on the part of the student. That is, the teacher is trying to help the boy to reconstruct his experience. His success is measured by the learning products that result. The expectation is that more effective learning will result when the problem is approached in this manner. Otherwise, the teacher would use the more traditional method—the memorization of facts and principles. In many curricular activities, the principle is not as clear-cut as in the illustrations cited, but in essence it is applicable to most situations. Other examples are the following: (1) Making a product chart of the New England region; (2) preparing a brief to convince the city council that it should build a swimming pool; (3) dramatizing the quarrel scene between Brutus and Cassius; (4) making a community survey; (5) making a school garden; (6) painting murals for the cafeteria; (7) publishing a school newspaper; (8) writing and presenting a school play; (9) beautifying the school grounds; (10) organizing a student council; (11) collecting scrap metals; (12) selling war savings stamps; (13) keeping accounts for the school lunchroom. Note that in

all of these activities learning as such is subordinated to active, vital, personal experiencing.

THE PRESENT EXPERIENCE OF THE STUDENT, HIS PROBLEMS, AND INTERESTS PLAY A DOMINANT ROLE IN THE DETERMINATION OF APPROPRIATE ACTIVITIES AND IN PLANNING, EXECUTING, AND EVALUATING OUTCOMES. At the outset, it should be made clear that all activities, whether they be experience or subject-matter centered, are most effective when the above principle prevails; but when the very nature of the activity depends upon its close relationship with the ongoing life that is being lived by the pupil, the principle takes on new meanings. Extrinsic motivation in a Latin class may be gradually transformed into whole-hearted interest in due time, but the direct-experience activity is doomed to failure from the start if the student is not activated by a strong motive for carrying it forward. Theoretically, of course, coercion could be used to get a boy to raise the acre of corn, but since essentially the same learning products may be secured by a wide variety of activities, it would be foolish and relatively ineffective to use force in initiating the project. That the above generalization is true in practice is evident from the widespread practice of granting teacher-student planning a significant place in carrying the experience-centered curriculum into effect. Schools that have moved in the direction of the experience-centered curriculum have generally given more and more attention to student initiative. This is no accident for it is part and parcel of the plan. Having once launched upon a given activity, the solution of the problem involved usually affords sufficient motivation, for the student can see what has to be done at each successive stage. The unfinished radio virtually cries out for completion, the corn will rot if it isn't harvested, the half-furnished room that is being decorated silently reproaches those who would leave it in its unfinished state. These facts do not suggest a *laissez-faire* attitude on the part of the teacher. They simply make the job of the teacher more significant—and in the long run more satisfying.

THE SEQUENCE OF ACTIVITIES IS DETERMINED PRIMARILY, NOT BY THE INTERNAL LOGIC OF A FIELD OF KNOWLEDGE BUT RATHER BY MATURATIONAL LEVELS, INTEGRATION OF PERSONALITY, GROWTH PROCESSES, EXTENSION OF PROBLEMS, AND INTERESTS. It was shown in the previous chapter that the subject-centered curriculum depends largely for its sequence upon the logical organization of the subject. The goal is mastery of the system. The teacher tries to find appropriate ways of doing this. It may be through intrinsic motivation. The subject matter may be "sugar-coated" by attaching it, for purposes of instruction, to the student's interests, but the sequence is determined, for the most part, by considerations that are "outside" of the student. If the student is studying world history, the teacher does the best he can to make Greek civilization interesting. If the student finds no interest in it, he "learns" it anyway—at least he goes through the motions of learning it. When the time has arrived for the study of quadratic equations, the assumption is that the student is ready and that the subject can be made interesting. Neither the student nor the teacher is likely to challenge the fixed sequence of the text book. The teacher may rationalize his failure to interest the student in the material by claiming that it is good discipline for him to learn it.

In theory at least the situation is reversed in the case of the experience-centered curriculum because the environmental situation, the stresses and strains that are operating, and the definable problems of the student, his growth and development, become the central factors in determining what to do next. This does not mean that the student does whatever he wants to do. It means that the wise teacher, looking at the student in terms of all the factors that are affecting his present living—his hopes and aspirations—becomes a partner with him in planning the sequence of his experiences. One unit or experience leads into another. New environmental factors press in and claim recognition. The determination of sequence becomes a sort of touch-and-go affair that cannot be categorized in terms of so much ground to be covered during the month of September.

For example, a community survey may be almost completely factual at first, but as the study progresses new lines of activity are revealed. Poor housing is discovered. Why do half of the people live in slums? Why are there inadequate recreational facilities in certain sections of the city? Why are delinquency and crime most prevalent in these sections? These are the lines of investigation that may develop, but they cannot be prescribed in advance without robbing the students of the thrill of adventure.

Again, pressing problems of etiquette, social usage, face-to-face relationships have their way of coming into the lives of students at certain maturational levels. They do not wait until the appropriate place in the textbook has been reached. And later stages of growth bring other problems that do not concern earlier adolescence at all. To impose the problem, say, of making a choice of vocation upon the young adolescent is to violate the developmental process. Such problems are thrust at the older adolescent by life itself through the very process of growing up and by the adolescent's attempt to achieve an independent status in society. That is one reason why the introduction of courses in "occupational civics," vocations, etc., in the eighth and ninth grade has been a failure in so many schools. These courses are, in part at least, the result of the mistaken notion that one widely publicized function of the junior high school was "to start each pupil on a career which, as a result of his exploratory courses, he, his parents, and the school are convinced is most likely to be of profit to him and to the state."⁴ It was a logical idea which readily caught the imagination of school administrators and teachers, but it ignored the psychology of adolescent development.

THE EXPERIENCE-CENTERED CURRICULUM IN PRACTICE

We are all more or less familiar with the kinds of activities that have been basic to agricultural education, homemaking, in-

⁴ Thomas H. Briggs, *The Junior High School*. Boston, Houghton Mifflin Company, 1920, pp. 175-176.

dustrial arts, and other fields, that have made effective use of the project method. We are also more or less familiar with the so-called "activity programs" that are now current in the more progressive elementary schools. These are good illustrations of the experience-centered curriculum. Much less familiar are the secondary schools that have reorganized their programs wholly or in part in terms of direct experience. Excellent illustrations of the experience concept are to be found in the so-called community schools. No attempt will be made to present a complete survey of this field. This has been well done in other studies.⁵ Our present purpose is to provide a few illustrations of experience-centered programs in order to make clear the concept that has been developed.

THE COMMUNITY SCHOOL. An extreme illustration of a school that has been almost completely merged with the community so that there is almost complete unity of action is to be found in the Holtville School,⁶ which is located in a small, strictly rural community about four miles from Deatsville, Alabama. The principal objective of the school, according to the principal, is "to improve the living conditions, economic, social, recreational—in this rural community." A survey of the needs of the community was made at the outset. This revealed that the most pressing need was better production and preservation of food. To meet this need, with the assistance of National Youth Administration Work Projects, and the Farm Security Administration, a cannery was built and is now being operated by teachers and students. Fruits, vegetables, and meat are canned

⁵ For excellent discussions of this movement, see: Samuel Everett, et al., *The Community School*. New York, D. Appleton-Century Company, Inc., 1938. Elsie Clapp, *Community Schools in Action*. New York, The Viking Press, 1939. Paul Hanna, *Youth Serves the Community*. D. Appleton-Century Company, Inc., 1936. Harold Spears, *The Emerging High-School Curriculum*. New York, The American Book Company, 1940. *Learning the Ways of Democracy*. Washington, Educational Policies Commission, 1940. "Promising Practices in Secondary Education," *Bulletin of the National Association of Secondary-School Principals*, XXIV (October, 1940).

⁶ This description is adapted from *Learning the Ways of Democracy*, pp. 323-325. See also *The Story of Holtville*. Southern Association Study. Holtville (Ala.), Holtville Public Schools, 1944.

either on shares with the farmers assisting, or by the school upon the payment of a small fee. A meat refrigeration plant and cold storage room were constructed, and turned over to the students to operate. Students assist farmers in planting and pruning fruit trees, and the school maintains a spraying service for the use of the community. In the school shops, farm implements are constructed and repaired.

Other needs that were discovered were: better home decoration, better recreational facilities, a newspaper, and better distribution of goods. The home economics students decorated the homes of its members, assisted by the agricultural classes that planted shrubs and flowers. Arts and crafts classes made draperies for the school and homes. The school conducts a nursery school for small children. A student staff edits and publishes a newspaper which is the only one which serves this community. The school operates a cooperative store which sells, among other articles, many products made in the school. A recreational program is carried out which includes community motion pictures and a game loan library. The school's gymnasium, bowling alley, archery range, and barbecue pit are, of course, all available to the entire community.

A similar community program has been developed in the Pine Mountain Settlement School,⁷ which is located fifteen miles from Harlan, Kentucky. Among the interesting developments is the "Co-op" course which is merely a vehicle for operating the Consumers' Co-operative store. Each year a new group of students "take" the course. Classroom activities are built around the general theme, "Man and His Food." The cooperative is owned by 64 staff members and students. Stock sells for twenty-five cents a share, and dividends have been known to amount to twenty-five per cent. The stock includes school supplies, canned goods, and staples, which are purchased by the students. All bookkeeping is done by the student group. According to Spears, "the entire academic program of the 'Co-op' group is tied into this project. Mathematics, science, economics,

⁷ For a complete description of the work of this school, see Harold Spears, *op cit.*, 73-93.

English, health, and history find practical implications in this study and handling of food and supplies. An important aspect of the work is consumer education, the benefits of which are carried to the entire student body through the activity. The project exposes the students to the cooperative point of view."⁸

In the Parker School District,⁹ near Greenville, South Carolina, the students in cooperation with the Community Council, which has been highly developed, made a community survey which includes such aspects as recreation, health (including sanitation, nutrition, etc.), traffic, and community beautification. An interview blank was worked out in the social science classes and this was used by the students in a house-to-house canvass in gathering data. As a result, a nutritional campaign which involved the entire community was carried out. The high-school students assisted in planting shrubs and flowers, supervised playgrounds for the younger children, set up and operated a child-care center for mothers who work in the mills. A "maternity shelter" affords first-hand experience in caring for babies to a large number of high-school girls. A high-school class after careful preliminary training, went to several community centers that comprise the Parker District and assisted nearly three thousand residents in preparing their income tax blanks. This service involved, of course, a thorough study of the tax law. Students had to know what exemptions were allowable under the law and to offer advice to taxpayers on the intricate application of the law to their particular situations. The school maintains an elaborate program for training mill workers through actual experience in the processes involved. This serves not only the student population but the adult population as well.

SOCIAL ACTION PROGRAMS. The illustrations that have been given above are typical of the kinds of activities that are

⁸ *Ibid.*, 79.

⁹ See James Tippet, *op. cit.*, for a general description of the Parker Program. This book was published in 1936 but still presents a quite satisfactory picture of the basic elements of the program, even though refinements are continually taking place. See also *The Parker High School Serves its People*. Southern Association Study. Greenville (S. C.), Parker District Public Schools, 1943.

becoming quite widespread—especially in the rural areas. They indicate that, increasingly, the lines between school and community are becoming blurred, and that the community is becoming a laboratory in which students may have first-hand experiences in not only studying community problems but also in helping to do something about them.

Another type of project in realistic community education of a somewhat different type, since it involves social action of a controversial nature, was carried out a number of years ago in Des Moines, Iowa.¹⁰ A class in social science in the Theodore Roosevelt High School undertook a study of the various types of city government. This study soon centered around city government in Des Moines. The question arose: "Should Des Moines have a city-manager form of government?" Students made first-hand and correspondence studies of the city-manager plan in other cities. They soon found that the introduction of this plan in Des Moines involved a change in the charter which had to be initiated by petition. Some fifty students from Roosevelt and two other high schools drew up and circulated a petition in search of the necessary signatures. In a three-months' campaign they had collected forty-five hundred signatures, about half the number required. The petition was turned over to an adult organization for completion. This, of course, stimulated widespread discussion both among students and citizens. Not all people were in agreement upon the proposal. Opposition groups developed both in and out of school. There was free debate on the issue. Needless to say, school officials remained neutral in the campaign.¹¹

Another group put on a "get-out-the-vote campaign." Students spoke over the radio, before civic clubs, and public forums. They advertised in the newspapers and staged a parade through the business section of the city before election day. Over two hundred students of the Roosevelt High School per-

¹⁰ Reported in *Learning the Ways of Democracy*. Op. cit., pp. 288-290.

¹¹ See Chapter XIV for an analysis of the problem of dealing with controversial issues.

sonally solicited six thousands voters in the school district urging them to register and vote.

PERSONAL LIVING AND FACE-TO-FACE RELATIONSHIPS. As has been shown, much of the emphasis in the experience-centered curriculum is placed upon meeting the needs, solving the problems, and extending the interests of boys and girls. It has been noted that this emphasis has stimulated the school to extend its curriculum into the life of the community. It has had another result. All of the analyses of adolescent development, adolescent interests, needs, or problems (see Chapter III) indicate that many of these concerns of adolescents center around immediate personal relationships and personality development. Young people are constantly asking such questions as "Am I normal?" "How can I make and hold friends?" "How can I improve my health?" "How can I overcome my lack of self-confidence?" "How does my mind work?" "How should I budget my allowance?" "Why can't I get along with my family?" "What colors should I wear?" "How can I help from being self-conscious at social gatherings?" "What should I know about sex?" "How may I make myself more attractive and popular?" "How can I learn to control my temper?" "How much should I be allowed to use the family car?" "Is there a God?"

The typical school does little or nothing about such problems for they do not fit readily into a subject-centered organization. The need has been met in some schools by adding courses in psychology, personal regimen, sex education, and the like. Such courses often consist of little more than imparting knowledge about these problems. Other schools seek to provide as much first-hand experience as possible as a background for the necessary knowledge. This is done through the day-to-day living in the school, through carefully planned parties, dances, and other social gatherings, through the raising of animals, through the school dining room, through planned social programs involving both parents and students, and through personal conferences. Too frequently such activities are incidental and poorly planned.

In some schools, the "core curriculum" or the homeroom are charged with the responsibility of meeting the needs in this area. At this point, we are mainly concerned in emphasizing this significant aspect of adolescent development. How the school should organize in order to meet it will be taken up later.

USE OF FIELD TRIPS. Many schools that are seeking to move in the direction of the experience-centered curriculum have instituted field trips in which the students make first-hand studies of important problems. Lincoln School of Teachers College, Columbia University, has explored the educational possibilities of such trips. A group of ninth-grade students spent some time on a New England farm in order to study first-hand a simple nonmechanized social situation. Another group of seniors made an extensive study of the Tennessee Valley Authority and other governmental and private planning projects in the South. Under a grant of funds from a foundation, a more ambitious study by a group of eleventh-grade students was made of a coal mining situation in Western Pennsylvania.¹² They spent two and one-half weeks in preliminary study under the direction of teachers representing several fields, nine days in the field, and five weeks in a follow-up study designed to clarify meanings. During the trip they visited a rolling mill in Pittsburgh and coal mines in Morgantown and Arthurdale, West Virginia, discussed problems with coal mining officials, labor organizers, social workers, Works Progress Administration officials, Housing Authority officials, unemployed miners, college professors from the University of West Virginia, and visited schools, settlement houses, and the homes of workers. The experiences of the trip were analyzed and evaluated. The evidence collected "suggests that carefully planned, direct experiences may result in clarifying the beliefs which students hold, it suggests also that greater allegiance to human values, firmer faith in democratic principles, a more flexible outlook which

¹² Reported by G. Derwood Baker, "An Eleventh Grade Field Study: The Coal Industry," *Educational Research Bulletin*, XVII, 173-188 (October 19, 1938) and Louis Rathis, "Some Evaluations of the Trip," *Educational Research Bulletin*, XVII, 189-208 (October 19, 1938).

considers solutions to social problems as tentative and not arbitrary, are some of the desirable outcomes which may come from educational experiences similar to the West Virginia trip."¹³

The Ohio State University School is another of the many schools that has incorporated the field trip as a regular part of the program. As a part of the core curriculum, the students make careful studies of the educational possibilities of trips to various places. Committees are appointed to investigate the literature and report back to the group. Final decisions are made by the combined judgments of students, parents, and teachers. The trips are financed largely by the parents, but the group raises money to take care of the expenses of those students who are unable to finance the trip. In recent years trips have been made to Detroit, New York, Chicago, The Tennessee Valley, and New Orleans. Each trip is carefully planned in advance and a period always follows during which reports are written and studied, and the entire project is carefully evaluated. Several teachers, selected for the most part by the students, always accompany the students. Usually it is the same group that participated in the preliminary planning. The teachers are chosen from fields of interest that promise the most for interpreting the various aspects of the trip. A published report of the Detroit trip presents an interesting account of the manner in which the project was planned, carried out, and evaluated.¹⁴

In connection with a study of occupations, students proposed a direct study of the way people earn a living, by going to one of the large centers of population. Various cities were proposed and the possibilities of each were considered. When the final choice was made, the group elected a chairman and the following committees: (1) Transportation, (2) Trips within Detroit, (3) Entertainment, (4) Hotel and Food, (5) Finances, (6) Agreements, and (7) Parent-Student. These committees car-

¹³ *Ibid.*, 208.

¹⁴ William Van Til, "Youth Visits Industrial Detroit," *Educational Method*, XVIII, 266-271 (March, 1939). For other reports on trips, see: Herbert Abraham, "Let's Interview the Government," *Educational Method*, XVII, 16-19 (October, 1937) and Elmina R. Lucke, "Travel Toward Economic Realities," *Progressive Education*, XV, 617-828 (December, 1938).

ried out their studies and reported to the group as a whole. The group made all final decisions. The students interviewed both industrial executives, representatives of the United Automobile Workers, as well as government officials on problems of capital and labor relationships. They visited a number of industrial plants, the General Motors Research Laboratory, Greenfield Village, museums, art galleries, and housing projects. In evaluating the trip, one student wrote: "The main thing I got out of the trip was the ability to see two sides to labor and governmental questions. After seeing myself what was good and bad in labor unions, I can draw my own conclusions much better."

It will be noted in the discussion of field trips that they are, as a rule, supplementary curriculum experiences. The study of some socioeconomic problem in the classroom is supplemented with firsthand experience. In many cases, the same, or even greater values could have been achieved by studies in the immediate community. As a matter of fact, the Ohio State University School has for a number of years experimented with such studies. Students who for some reason did not wish to go on the annual field trip studied the local community during the time their classmates were away. For example, while the majority of the junior class were on a trip to the Tennessee Valley studying housing, conservation, flood control, and education, the remaining members of the class studied somewhat similar problems in Columbus. They made trips to the Bureau of Juvenile Research, to slum areas, to the Girls' Industrial School, to a glass factory, to the Children's Hospital, to the various clinics, and to one of the local high schools. Group conferences and personal interviews with representatives of these organizations were held. The experiences of the T.V.A. group and the Columbus group were compared, evaluated, and recorded in an attractive booklet. The account of the trip closes with the following significant paragraph:

So ended the Junior trips. We came back to school after a week of interesting and educational trips. Although the students who stayed home in Columbus and the ones who went to the T.V.A. had different ideas in view, both the groups turned out to be study-

ing the same thing at the end of the trips; people and the way they live. . . . No matter what you may study it would not be important if it did not have anything to do with people. It will always come back to people and the way they live.

The field trips illustrate one way to break from traditional practices. The experiences of the trip play back into the classroom activities to enrich them, and classroom activities add significance and meaning to the trip. They do lack something of the living quality of more comprehensive community programs that have been discussed previously, but they are a step in the right direction—possibly a transitional phase which eventually will be replaced by a more dynamic type of experience. As a way of giving added vitality to the subject-centered curriculum, they have much to recommend them.

STUDENT ACTIVITIES. No discussion of the experience-centered curriculum would be complete without pointing out that so-called “extra-curricular activities” are a significant part of the experience-centered curriculum. If the curriculum of the school is truly regarded as embracing all of the student activities sponsored by the school for the purpose of achieving its objectives, these types of experience should not be neglected. Whether such activities are merely appended to the regular curriculum or an integral part of it, a strong case may be made for them in terms of the significant values of our democratic culture which we seek to achieve and enhance. The school council, if given a real opportunity to function, provides important training in democratic processes such as cooperative planning, action, and decisions arrived at through conference and free discussion.¹⁵ Such problems as school control, athletic and other types of awards, planning for all-school festivals, assemblies, school-wide projects, such as salvage campaigns and clean-up drives, can be successfully met by responsible student committees in cooperation with faculty groups. In the subject-centered school, such

¹⁵ For many excellent illustrations of the way democracy may be learned through student activities, see *Learning the Ways of Democracy*, Chapter IV, and H. H. Giles, S. P. McCutchen, and A. N. Zechiel, *op. cit.*, Chapter V.

democratically functioning student groups are the school's chief resource for training in democratic living. In experience-centered programs which provide for continuous student participation in planning the total life of the school, they form an indispensable and integral part of the experience of the student. Any listing of appropriate activities for students is bound to be incomplete and inapplicable to all schools, but we have abundant evidence that students may participate effectively in (1) administration, (2) curriculum planning, (3) care of buildings and grounds, (4) management of lunchrooms and recreational facilities, (5) operation of libraries, bulletin boards, etc., (6) safety programs, (7) social activities of all kinds, (8) editing newspapers, (9) preparing school handbooks, (10) planning and conducting public meetings, and (11) morale building programs of all sorts.

There are many reasons why American life falls far short of attaining the ideals which we accept as basic to democracy. Likewise in a school there are bound to be serious limitations upon the functioning of true democracy, but certainly it is the responsibility of the school to try continuously to make democracy work in daily life. Student activities can contribute significantly to that end.

WORK EXPERIENCE. The broad concept of work experience needs little justification as a part of an educational program. With the transformation of our culture from an agrarian to an industrial society, more and more youth have been denied the opportunity for effective participation in economic life. From the simple standpoint of mental hygiene this situation is bad, for a feeling that one counts, that one is engaging in socially significant activities is essential to the well-being of youth. At an earlier time, this need for participation was cared for to some extent within the home environment. Youth developed a feeling of belonging through work around the home. With the coming of industrialization and mechanization, this has of necessity become less common. Some of the community schools discussed earlier in this chapter have solved the problem for the in-school

youth by making education part and parcel of life outside the school; but as has been pointed out, this is only a beginning.

In 1937 some one and three-quarter million boys and girls, fifteen to nineteen years of age, were totally unemployed and not in school. In addition, two or three million youth beyond the high-school age were totally unemployed. These facts present a staggering problem to those who are concerned with the education of youth for democratic citizenship.

To federal organizations, such as the National Youth Administration, belongs the credit for pointing the way to a solution of the problem.¹⁶ The nature of the work is of special interest because it has significant implications for the experience-centered curriculum of the future. In addition to the enormous number of youth engaged on a part-time basis in industrial work, in October, 1940, the National Youth Administration provided employment on useful public works projects as follows:

About 6,000 youth worked on the improvement of grounds around public buildings—doing grading, sodding, and planting of shrubbery, trees and flowers—and laying out or improving parks. Another 7,600 were assigned to highway, road and street work, on which they graded and laid road surface, set curbs and sidewalks, and constructed culverts and bridges. A large part of the work on these road projects was directed to improving road safety by building guard rails, painting markers, and installing lights, signals, and other safety devices. Over 25,000 youth were engaged in constructing schools, recreation centers, and other public buildings . . . Improvement of recreational facilities occupied some 15,000 youth . . . These workers built or improved athletic fields, playgrounds, grandstands, bleachers, tennis courts, swimming pools, and other facilities for public use; they also made or renovated the recreational equipment . . . Projects designed to further conservation, flood control, and sanitation employed about 5,000 youth in building check dams, terracing land, sodding gullies, carrying on reforestation, improving bird and game sanctuaries, establishing fish hatcheries, and setting up water supply and sewage facilities.¹⁷

¹⁶ See Lewis L. Lorwin, *Youth Work Programs*. Washington, American Council on Education, 1941, for an excellent presentation of the philosophy and practices involved.

¹⁷ *Ibid.*, pp. 67–68.

For a report on other actual practices in the field, see *Bulletin of the*

The above quotation provides a striking illustration of what the high school might do were it to conceive as a function the providing of wholesome work experience for all boys and girls. Carried on as an integral part of a program of civic education, it would have enormous possibilities of restoring to youth the feeling of active participation in the life of the community.

An interesting application of the work-experience concept is to be found in the establishment of work camps in connection with the high school. These are usually operated during the vacation period but are sponsored and supervised by the school. These have been particularly successful in the agricultural field where the need for seasonal workers is great. Opportunity is provided for young people to gain experience in useful work in the fields, and in marketing produce. Reports from such camps indicated that when properly supervised they are the means of achieving democratic values which can be closely related to the program of the school.

The programs of part-time work in commerce and industry which were stimulated by the war are also illustrations of the possibility of combining active participation with classroom work. Many city schools have worked out cooperative programs in distributive education, which, under the guidance of specially trained teachers who act as placement and guidance officers as well as coordinators, afford valuable opportunities for combining actual experience with the often theoretical work of the school.

Such programs are likely to meet with many obstacles until industry becomes more highly socialized, but that is no reason for the school's failure to make use of the opportunities currently available to it. Out-of-school agencies have pointed the way. It remains to be seen whether the schools have the will, foresight, and imagination to capitalize on the experiences of these agencies, in re-creating its own program. Were it to do so, it would have numerous advantages, for the school could plan a total program for youth that would break down the dualisms be-

tween the school and life outside, between "culture" and vocation, between the experience and subject-centered curriculum.

THE EXPERIENCE-CENTERED CORE CURRICULUM

A rapid survey of the significant developments in the movement to provide realistic first-hand experiences to high school students has now been completed. The reader will note the disconnected character of many of the activities that have been discussed. This is because in a large measure they have been grafted on to the subject-centered curriculum. It will be observed also that many of the activities that have been discussed are not readily classifiable in terms of conventional subject categories. When students undertake a study of their community, the scope knows no subject bounds. Science, social science, mathematics, the arts, language, and other fields play a significant part in any thoroughgoing participation in the life of the community. When students go about trying to solve their personal problems, their experiences disregard conventional subject lines. When students undertake a field trip to the West Virginia coal mines, they draw heavily upon sociology, economics, physics, chemistry, language, the industrial, fine, and home arts. In other words, much of the normal activity of life cannot be fitted into the curriculum organization of the conventional school. To try to do so is bound to give it an artificial character. A more complete and drastic reorganization is needed. Such a reorganization would tend to cut across subject lines, would require larger blocks of time than conventional periods, and would subordinate logical organization to direct experience. (This point will be discussed more fully in Chapter VI which deals with the core curriculum concept.)

ARGUMENTS FAVORING THE EXPERIENCE-CENTERED CURRICULUM

By way of concluding the discussion of the direct experience approach to learning, the following appraisal is made.

THE EXPERIENCE-CENTERED CURRICULUM IS VERY CLOSELY RELATED TO THE NEEDS, PROBLEMS, AND INTERESTS OF YOUTH. This principle is almost axiomatic, for when the school breaks with logically organized subject matter as a basis for the curriculum, it does so in order to plan its program in terms of actual first-hand experience. As has been pointed out, this does not mean that the racial heritage is thrown overboard, but rather that it is used to enrich and interpret individual experience. Most experience-centered units of work utilize more rather than less organized subject matter than the traditional textbook assignment.

THE EXPERIENCE-CENTERED CURRICULUM UTILIZES TO THE FULLEST EXTENT THE ENVIRONMENT, BOTH PHYSICAL AND SOCIAL. We have seen how the schools that are moving in the direction of the experience-centered curriculum stress community study and participation. This again seems to be a natural emphasis, when the school breaks with the academic tradition.

THE EXPERIENCE-CENTERED CURRICULUM IS EASILY ORIENTED IN TERMS OF DEMOCRATIC VALUES. Democracy is primarily a way of living. The group project, the unit planned cooperatively, the study of the community, all lend themselves admirably to the development of distinctively democratic values, for it is in the processes of living that we see democracy at work and in which we test its effectiveness.

THE EXPERIENCE-CENTERED CURRICULUM POSSESSES SIGNIFICANT POTENTIALITIES FOR UNIFYING THE SCHOOL AND THE COMMUNITY. When the community serves as a laboratory for the study of living problems, the community is brought nearer to the school. Many of the activities that the school provides require the active participation of the community. In this way, the objectives of school life and community life tend to merge. This does not mean that good school-community relationships are possible only in an experi-

ence-centered school. It does mean, however, that good relationships are stimulated and facilitated by such an organization.

THE EXPERIENCE-CENTERED CURRICULUM PROMOTES THE UNIFICATION OF THE VARIOUS ASPECTS OF SCHOOL LIVING. It is axiomatic that to the extent the learning activities are broadened in terms of personal social-economic problems, the teaching staff, the students, and the community are virtually "forced" into close cooperation. The word, force, is used advisedly. It does not mean external coercion, but rather the compulsion of the situation itself. Broad enterprises such as are a part of the thoroughgoing experience-centered curriculum will not be successful unless all of the resources of the school, personal and material, are used economically and efficiently. Again, as students assume responsibility in helping to plan the major activities, the distinctions between the curricular and the extra-curricular tend to disappear. The same kind and quality of intelligent participation that has characterized the work of the student council at its best, will also characterize the student's participation in the day-to-day life of the school.

THE EXPERIENCE-CENTERED CURRICULUM IS CONSISTENT WITH THE NEW PSYCHOLOGY OF LEARNING. Learning is an active process. It takes place best when the organism is confronted with genuine problems that require the use of the method of intelligence. The experience-centered curriculum provides admirably the setting for this type of activity. Again the facing of situations that are part and parcel of the student's changing environment is the best guarantee of the transfer of training to new situations, provided that the teacher is alert to the possibilities of transfer. The unified character of the activities undertaken stimulates and facilitates the process of integration in the growth of the student.

ARGUMENTS AGAINST THE EXPERIENCE-CENTERED CURRICULUM

In spite of the fact that the experience-centered curriculum

seems to be consistent with the democratic philosophy and the newer psychology, it has not found ready acceptance in the secondary school. A discussion of some of its alleged weaknesses may help us to understand why this is true.

SOME EDUCATORS CONTEND THAT FACTS AND PRINCIPLES THAT ARE LEARNED IN THE MATRIX OF DIRECT EXPERIENCE ARE NOT PERMANENTLY RETAINED OR APPLIED READILY TO NEW SITUATIONS. This is an argument against incidental learning of all sorts.¹⁸ There is probably an element of truth in this claim, provided that the teacher is not conscious of the necessity for helping the student to intellectualize his experience. It must be admitted that there is no automatic transfer, and that teachers are frequently guilty of assuming that there is transfer where none exists. A class may be engaging in a truly democratic activity. Many of the elements of the democratic process may be clearly obvious to the trained adult who is participating in or observing the situation. They may not be obvious at all to the group of students. The students may not really know what is behind what they are doing. If activities are to be educative, if they really are to function in the reconstruction of experience, they must be intellectualized. Otherwise they become meaningless routine. To the extent that the school fails to help students to comprehend the full implication of what they do, the criticisms that have been leveled at the school are justified.

TEACHERS ARE NOT PREPARED TO CARRY ON EXPERIENCE-CENTERED PROGRAMS. This is certainly true, and it has been shown in numerous connections in this book why it is so. It goes back to the training and experience of the teacher, and to the forces of tradition that are operating on him—most of which perpetuate the subject-centered approach. The more highly trained is the teacher in some specialized field, the more difficult it is for him to see possibilities in the experience-

¹⁸ Many years ago Bagley voiced this criticism of the Project Method. Since then it has been reiterated frequently. The so-called essentialists would in general support this position.

centered approach. And, as has been pointed out, teacher-education institutions are not helping much to prepare teachers for this shift in emphasis. But the school should really become the training ground for its teachers. In-service training under the guidance of an educational leader can accomplish wonders with teachers whose minds are not closed to the possibilities of change.

COMMUNITIES DO NOT READILY ACCEPT THE SHIFT IN EMPHASIS FROM THE SUBJECT-CENTERED TO THE EXPERIENCE-CENTERED PROGRAM. There is much truth in this assertion. It is no accident that the so-called community school has thrived best in relatively backward, or perhaps we could say, "deprived" communities. If a community has no motion-picture theater, it accepts, even applauds the school's efforts to supply one. If it has no general store, the operation of a "cooperative" by the school is logical. If vegetables are spoiling in the fields, the school's help in harvesting and preserving is welcomed. When industry cannot obtain sufficient adult workers, youth are readily given employment. Work experience is held to be an excellent thing for all students, but usually it is limited to the less favored economic groups. In other words, the experience-centered program often works best in deprived areas, and with deprived groups of students. All this must be changed if the new program is ever to gain wide acceptance. Can it be done? It has already been shown that with an awakening of community consciousness—some of it under the exigency of war, there is a trend toward the organization of councils made up of representative groups including the school. These have become clearing houses for projects of community improvement pertaining to health, recreation, and social and civic betterment. The school can play a significant role in such an organization. Then, too, there are signs that industrial life is undergoing change toward greater socialization. This movement was accelerated by the stresses and strains of depression and war. As industry becomes more socialized, the aims of the school and industrial life will tend to become more unified, and youth will

find educative experience in industrial life, just as he now finds educative experience in farm life through the vocational agriculture programs that are common in many rural high schools.

SCHOOL PLANTS ARE NOT EQUIPPED TO CARRY ON AN EXPERIENCE-CENTERED PROGRAM. Again the truth of this assertion must be generally admitted. There are many practical arts shops being built today that contain no equipment for the repair of an automobile, to say nothing of being able to get an automobile into them. There are many, many schools being built with no provision for the care of animals, with completely inadequate libraries, with no provision for arts and crafts, with no space surrounding the school for anything but an athletic stadium. But on the other hand, until schools—administrators and teachers themselves—become conscious of the need for a new type of education, these conditions will continue to exist.

And all over the land we have illustrations that the sort of buildings, equipment, and grounds that are needed, have been made available and are functioning. In other words, the ideas presented herewith are not so novel that they cannot be documented in current programs.

THE EXPERIENCE-CENTERED CURRICULUM DOES NOT MAKE ADEQUATE PROVISION FOR LOGICAL ORGANIZATION. Many of the proponents of the experience-centered curriculum are to be blamed for this criticism. They deserve it. When the logical organization of subjects is abandoned with its easily understood scope and sequence, all too frequently all organization is shown the door. Dewey's plea for the necessity of a philosophy, and an appropriate organization of experience¹⁰ is a warning that mere activity is not educative and that unorganized experience is not effective in reconstructing present experience. It was undoubtedly prompted by unintelligent applications of the experience approach. Before the respect

¹⁰ John Dewey, *Education and Experience*. New York, The Macmillan Company, 1938.

of the rank and file of administrators and teachers can be secured, an adequate frame of reference must be provided that will yield adequate principles for determining scope and sequence. Otherwise, the experience-centered curriculum is opportunistic and superficial and doomed to failure.

SUMMARY

Direct experience has both an active and a passive aspect. On the one hand, the individual is carrying on an activity. On the other, he is undergoing certain consequences as a result of interaction with the environment. Out of this interaction grows meaning, which is essential to experience. A curriculum based upon direct, personal experience is much more apt to be meaningful to the student than one based upon the logical organization of subject matter. Such a curriculum, however, must draw heavily upon logically organized subject matter if it is to be effective. Perhaps the so-called community schools are the best illustrations of the experience-centered curriculum. Programs of work experience, student activities, field trips, and the like, do much to supplement the subject-centered organization. When carried to their logical conclusion, they may become the center for curriculum organization. If experience-centered curriculums are to be successful, they must provide adequately for the organization of knowledge. The core curriculum, interpreted in terms of adolescent needs, is one of the leading types of organization for utilizing direct experience. (This will be discussed in the following chapter.)

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THE EVOLVING CORE CURRICULUM

IT HAS BEEN NOTED IN PREVIOUS CHAPTERS THAT THERE IS A decided trend toward the breaking down of subject lines. Logically organized subject matter has been "enriched" by adding new materials—frequently from other fields. Good illustrations of this trend are readily discovered in the fields of science and mathematics which traditionally were taught very narrowly. The good science teacher introduces all sorts of social content to give meaning to scientific principles and to show their application to human living. It is not sufficient, for example, to study the principles underlying the flight of aircraft and their application to aircraft construction. The role of the airplane in transforming living must also be considered. Without these social implications, the full meaning of the rise of science and technology is not understood by the student. In the closely related field of mathematics, until the student understands that the techniques of mathematical proof are applicable to solving problems in politics, economics, and religion, it can hardly be said that he is being educated. In the field of language and literature, it is almost impossible and certainly undesirable to exclude the subject matter of any field. Literature torn from its social setting is lifeless—and the social sciences, on the other hand, cannot be understood without an understanding of literature. The complete exploration of such relationships calls for definite planning and cooperation.

THE TREND TOWARD UNIFICATION
OF SUBJECT MATTER

It was indicated in earlier chapters that this trend has found expression in broad-field programs which break down the barriers among the various subjects within a field. There is, of course, no logical reason why the boundaries of the various fields should remain inviolate. As a matter of fact, this quest for the fullest possible meaning of experience knows no subject-matter boundaries. However, were all teachers in a given school to take this broad point of view concerning subject matter, the curriculum would soon become chaotic for there would be much overlapping. As teachers discovered the actual problems and needs of young people and sought to meet them, the neat divisions of responsibility would tend to disappear. In practice, this fact has necessitated the systematic development of curricular programs which transcend subject-matter lines.

What has been responsible for this trend in high-school curriculum reorganization? Obviously, it has been due mainly to the feeling of dissatisfaction on the part of teachers and administrators with the traditional subject curriculum. There have been, however, a number of closely related factors which have had a distinct bearing upon the growth of this concept of unification. A number of these will be discussed briefly.

THE ACTIVITY MOVEMENT IN THE ELEMENTARY SCHOOL. For a long time the better elementary schools have been organizing their programs around direct and first-hand experiences of children. A large part of the school day is given over to the comprehensive unit of work, which draws upon all pertinent knowledge, regardless of the so-called subjects. For example, the group may start with the problem of getting to school in the morning and plan a study of transportation which calls for trips to various places in the community, library study of the evolution of transportation, understanding of the rise of technology, and the like. It is not difficult to see that learning of this sort has vitality, because it touches the daily

lives of the children. It is also obvious that such a unit involves language, literature, social science, science, mathematics, the arts, and possibly all of the subjects thought to be essential in the elementary curriculum. This does not mean, of course, that time may not be set aside for leisure reading, for drill in terms of demonstrated needs, for the development of special skills, or the exploration of special interests.

Such programs in the elementary school are far beyond the experimental stages. Careful studies have shown the superiority of such programs over traditional ones. The fear of parents that their children will not learn the "fundamentals" has, by careful evaluation studies,¹ been proven to be groundless. And in addition, children who have had the experience which such a program affords develop social responsibility and other democratic attitudes.

Educators are beginning to ask why, if such a plan of curriculum organization is effective in the elementary school, it should not be extended to the high school. The argument that greater maturity of the student demands a radical change in curriculum organization is not very convincing. It would probably be nearer the truth to say that high-school teachers are not prepared for this type of teaching, and that, as a consequence, they feel very insecure when a change is proposed.

THE EXPERIENCE CONCEPT. The marked trend toward the use of direct experience in the high school was discussed in Chapter V. Trips, work experience, extra-curricular activities, dramatizations, forums, radio programs, etc., are beginning to play more and more of a part in the life of the student in the modern high school. That such activities promote vital learning needs no proof. It is logical then to ask why such activities should not be made the basis of curricular organization rather than be considered as marginal or extra. The search is on for a way of doing this, but progress is slow, because of the intrenchment of traditional subject organizations.

¹ For example, see J. Wayne Wrightstone, *Appraisal of Elementary School Practices*. New York. Bureau of Publications, Teachers College. Columbia University, 1928.

UNIT TEACHING. There is a distinct trend toward unit teaching in the high school. The success of the project method, the problem method, and the various unit plans has been generally recognized. But any thoroughgoing development of these plans calls for a definite break with the daily ground-to-be-covered textbook procedures. As teachers develop comprehensive learning units, they tend to reach out into all pertinent fields for materials to illuminate the basic concepts which give unity to the enterprise, and subject-matter lines become blurred or obliterated entirely.

TEACHER-STUDENT PLANNING. For a considerable time, particularly in the best elementary schools, fixed quotas of subject matter to be learned have tended to give way to experiences or activities which arise from the cooperative planning of teachers and students. This trend has been accentuated by studies which show that learning proceeds more effectively when students assume some responsibility for their assignments, and by a realization that preparation for democratic living demands that the life of the school be the finest possible exemplification of democratic living. This means that cooperative planning becomes a necessity. In practice, the result of the application of this principle means that the boundaries of conventional subjects are repeatedly violated.

THE SEARCH FOR COMMON NEEDS. The recognition that secondary education, if it is to play a major role in the refinement of democratic living, must face realistically the task of meeting the needs, interests, and problems of the adolescent, has resulted in a serious questioning of the subject-centered approach. Many of the needs which have been discovered as a result of studies of adolescent development are not easily fitted into conventional subject patterns. Large areas are almost completely neglected. To meet these needs, either new courses must be added, or new types of unified courses must supplant the old. Some schools take the first, and perhaps easier way out, and we find new courses such as conservation, consumer educa-

tion, consumer science, human biology being added to the already overcrowded curriculum. The more difficult, but more satisfactory, solution of the problem has led to the development of courses in "social living," "general education," "unified studies" and the like, which break more or less completely with conventional patterns.

DEFINING THE CORE CURRICULUM

The foregoing analysis of trends indicates that a new pattern is emerging to replace the requirement of a series of separate subjects in the high-school curriculum. Traditionally, curricular offerings have been divided into "constants," required of all students, "variables," required of certain groups of students, and "free electives" required of no student, but possible of election by any student who has the necessary background and the time. The subjects required of *all* (e.g. English, social studies, health, etc.), have been called the "core" curriculum.² This idea of common experiences, as a basic requirement, has been carried over into the modern conception of the core curriculum. In addition, the practice of cutting across subject lines in organizing these common experiences has gained some headway. Reduced to its lowest terms then, the core may be regarded as that aspect of the total curriculum which is basic for all students, and which consists of learning activities that are organized without reference to conventional subject lines.

It is to be expected that an evolving concept such as the core would not have a fixed and precise meaning. We may, however, say that the current practices which are examined in this chapter reveal the first two characteristics listed below and some or all of the remaining ones:

1. The core consists of learning activities that are regarded as basic to the education of all students. Within this framework, however, provision is made for individual differences.
2. The learning activities cut across conventional subject-

² The term is used in this sense in *General Education in a Free Society*. Harvard Committee Report. Cambridge (Mass.), Harvard University Press, 1945.

- matter lines. This may involve "putting two or more subjects together" or complete disregard of boundaries.
3. The core utilizes a relatively large block of time in the daily schedule in order to make possible diversified activities such as trips, library work, discussions, demonstrations, and experimentation, without disruption of other scheduled classes.
 4. The core provides for the extensive use of teacher-student planning in terms of the immediate and long-range needs, problems, and interests of students.
 5. The core encourages, and frequently provides for co-operative planning and teaching in terms of the most effective use of the specialized abilities of the teaching personnel.
 6. The scope and sequence of learning activities are determined by the needs of the situation rather than by the logical organization of any one subject or field.
 7. The core organization tends to discourage the use of long periods for drill or laboratory exercises which do not contribute directly to the central problems involved in the unit. Regular drill periods are not set aside but are planned as the need develops.
 8. The core frequently absorbs the activities generally assigned to homerooms, such as class business, social affairs and the recording and reporting of student progress.
 9. Many core curriculums include the guidance and counseling function. Guidance and the curriculum become inseparably connected.
 10. The core organization encourages the development of broad comprehensive resource units which teachers may draw upon in planning learning activities.
 11. A distinction is frequently made between the core period, which embraces many marginal and related activities (e.g. drill, leisure reading, supervised study), and the core unit of work which serves as the unifying center of the activities of students.

TYPES OF CORE-CURRICULUM
DEVELOPMENT

These characteristics of the modern conception of the core curriculum will be illustrated as current practices are examined and evaluated. These practices will be discussed at this point, starting with those which represent only slight departure from conventional practices and moving on to those which require rather extensive reorganization of curriculum and teaching procedures.

UNIFIED STUDIES. The most common plan for core curriculum development is the unification of certain subjects or parts of subjects. The most obvious example of this plan is the combination of English with certain elements of social science. In most high-school curriculums, English is a required subject in at least five of the six years of the program. Some form of social studies is commonly required in at least four of the six years. Hence, it is logical to make certain combinations in order to unify subject matter from both of these fields. The simplest application of this plan would be to include in the English program literature dealing^a with historical epochs and with social, economic, and political problems. Some of the famous documents of history such as the Declaration of Independence, the Gettysburg Address, the Lincoln-Douglas debates would also find a place. English teachers have always included some of this material without regarding it as an innovation, but it is easy to see that the use of social science material might become a significant feature of the program which would require the studied cooperation of the English and social science teachers, and which would demand a larger block of time than that which is ordinarily given over to the teaching of English.

In the early years of the Eight-Year Study, it was fairly common to provide a two-period block of time for a new course

^a For an interesting discussion of the possibilities of this type of program on the college level, see an article by E. C. Drake entitled "Renegotiate the English Teacher," *Harpers Magazine*, CLXXXIX, 470-473 (October, 1944).

which became known by a variety of titles such as "core course, stem course, general education, social living, and unified studies."⁴ This double period replaced the separate periods formerly devoted to English and history. The English teacher and the social science teacher planned and taught the combined course cooperatively. Sometimes this meant doubling the size of the group of students in the class. This was an administrative device for maintaining the same pupil-teacher ratio under the new plan. The first problem faced in the organization of such a course was, "what shall be the sequence of student experiences?" The scope is, of course, the combined subject matter of the separate courses. In common practice, the history course provided the sequence. It is not difficult to see why this was true. The chronological organization of most history courses provided a ready-made, and easily understood sequence. The conventional organization of material around various historical culture epochs was continued. In "fusions" of world history and literature, the material was grouped about such units as Greek civilization, the Roman period, medieval culture, contemporary cultures, and the like. In combined courses in American history and literature, units such as the period of discovery, colonization, the Westward movement, the industrial revolution were common. The literature of each period was used to enrich the political, social, and economic subject matter usually taught by the social science teacher. The English teacher also supervised the writing of the student which centered chiefly upon the cultural period being studied.

The combination of history and English is only one of several that are being utilized to bring about greater unity of knowledge. Another common grouping is social science, English, and science. Here the principle of organization may shift back and forth between social science and science. For example, a unit on the "Community Water Supply" may be built around science concepts, but may draw upon social science to develop the social implications, and upon English to provide experience in

⁴ H. H. Giles, S. P. McCutchen, and A. N. Zechiel, *Exploring the Curriculum*. New York, Harper and Brothers, 1942, Chapter II.

written and oral language. On the other hand, a unit in "Community Housing" may be organized around social science generalizations, utilizing science and English to give added meaning and breadth to the generalizations. Another combination that has been quite successful is music, art, and literature, in which principles common to all three subjects are utilized as the organizing center. Still another is foreign languages, social science, and English under the heading of "Foreign Cultures." Here, social science concepts usually provide the organizing center. Mathematics has been frequently introduced in connection with most of the above combinations; but usually when this is done, it is taught also as a separate subject. The arts, fine and practical, and music are also drawn upon heavily in many of the combined courses, but like mathematics, largely as a service area rather than as a full-fledged partner of the venture. In some schools, the subjects that are unified vary at the different grade levels. Thus, in the ninth grade, social science and English may be combined; in the tenth, social science and biology; in the eleventh, social science and the physical sciences; and in the twelfth, American history and literature. Probably the basic reason for such an arrangement is that it fits into the conventional subject requirements at the different grade levels.

The unified-studies plan has the merit of being fairly easy to administer for it can be introduced without much change in the daily schedule. In the hands of skillful teachers with a will to cooperate, it may result in significant gains. It goes a step in the direction of unifying experience, and thus promotes more effective learning. On the other hand, it leaves many related areas of experience untouched. In some schools, the program has been abandoned largely because of the failure to secure wholehearted teacher cooperation. Many teachers feel that their field is made less significant when combined with other fields.

THE CULTURE-EPOCH CONCEPT. When the idea of unifying history and other subjects is carried to its logical conclusion, the scope of the curriculum is immediately broadened. Why should the fusion be restricted to English and history?

After all, the Greeks played a major role in the development of science and mathematics. They also had an extensive and highly perfected interest in art. They had a distinctive type of home life. In other words, a thorough study of Greek civilization involves all, or nearly all, of the subjects of the curriculum. Certainly the science, mathematics, fine arts, and home economics teachers have important contributions to make to the development of a proper understanding and appreciation of Greek life. Undoubtedly, this was the logic that prompted the extension of the fusion of history and English to include other subject-matter areas. This plan of organization has been called the "culture-epoch" curriculum.

The Horace Mann High School for Girls of Teachers College,⁵ Columbia University, probably afforded the best illustration of the culture-epoch concept. The following outline gives a general idea of the scope and sequence of the course which for many years provided the center of the curricular organization.

1. THE STORY OF MAN THROUGH THE AGES.

- Grade 7. From the beginning through the ancient period
- Grade 8. To the discovery of America
- Grade 9. From the discovery of America to life in the Modern World

2. MODERN CIVILIZATIONS AND CULTURES.

- Grade 10. American civilization and culture
- Grade 11. Other modern civilizations and cultures (e.g. Russia, Germany, China, Great Britain, France)
- Grade 12. Modern problems and issues in America

This course was designed to provide for the "establishment of relationships among the various subjects which would aid in

⁵ For a detailed description of the program, see *Thirty Schools Tell Their Story*. New York, Harper and Brothers, 1943, pp. 395-430.

contributing to a more complete picture of society." It was planned and taught by teachers representing the fields of fine, industrial, and household arts, mathematics, science, music, and languages, in cooperation with a "coordinating teacher," who usually represented the fields of social science and English. Within the broad areas, provision was also made for much student-teacher planning.

The course was required of all students and usually occupied about half of the student's school day. The other half of the student's time was given over to elective subjects of a more or less conventional sort.

It will be noted from the above outline that the general orientation was in terms of the past. Historical background material was very much in evidence. This is not to say that the present was neglected. There was constant reference to the everyday problems of the students, and a continuous "shuttling" between the past and the present. In most courses of this sort, however, there is a tendency to use contemporary problems as an aid to an understanding of the past, rather than to use the past for the purpose of furthering an understanding of the problems of our own contemporary culture. This is plausible, because as the course is set up, eventually the emphasis shifts to the contemporary scene. If contemporary problems were to be dealt with throughout, the outlines as given would be almost meaningless. Why this emphasis upon the past? It is undoubtedly part of the time-honored tradition that holds that the present cannot be understood without a thorough knowledge of what has gone before. This argument has much to recommend it. Certainly it has the respect of a great many people. But one may also be exceedingly skeptical as to whether "ancient civilizations and cultures" is a very vital theme for the early adolescent. It can be made interesting to him by a good teacher, but at best it is rather far removed from the life that he is living. If the teacher actually deals with his interests and the problems that confront him, they are apt to be "dragged in" quite out of relationship to the "theme" which is supposed to be under consideration.

But whatever may be said of the weaknesses of such a program, it possesses certain definite strengths that cannot be dismissed lightly. It eliminates the piecemeal treatment of subject matter that so frequently bewilders the immature student. It provides for a sufficiently large block of time to permit the carrying out of trips and group projects. It stimulates teachers to plan and work together. It helps the student to secure a well-rounded and unified understanding of cultures, past and present.

The program of the *Lincoln School of Teachers College*,⁶ Columbia University, during the Eight-Year Study is a good illustration of a core curriculum that did not depend exclusively upon historical continuity but which did not break completely with that concept. The program was built around "themes" for each grade with much student-teacher planning within the broad themes in terms of the immediate interests of the students. In the *Seventh Grade*, the emphasis was placed on man in relation to his natural environment. It began with a first-hand study of simple interactions between man and his immediate environment, and extended to the "world community." The culture patterns that have evolved under differing climatic conditions were especially stressed. In the *Eighth Grade*, the understanding of a culture was elaborated by a study of American life in its early agricultural stages. The natural environment was broadened by the inclusion of a study of customs and values. It was somewhat chronological in that it began with the transplantation of European cultures in America, and continued with the colonial period, early national development, and the westward movement. The art and literature of the particular period as well as the social and economic status were studied. The *Ninth Grade* had for its broad theme "Living in a Machine Age." Special emphasis was placed upon the industrial revolution in America and its impact upon problems of living. The *Tenth Grade* began with the civilizations of the ancient Mediterranean world with a view to understanding Western civilizations. The study centered upon the development of ideas, rather

⁶ For a detailed report of this plan, see *Thirty Schools Tell Their Story*. New York, Harper and Brothers, 1943, pp. 459-493.

than upon political and economic history. The work of the *Eleventh Grade* dealt with problems of the modern world in the light of man's experience in the past. Units such as the following were studied: (1) Collective Security in the Light of Greek Experience; (2) Interracial and Intercultural Relationships, in the Light of the Roman Experience; (3) Social and Economic Democracy, in the Light of the Medieval Feudal Society; (4) Changing Ways of Thinking, in the Light of the Renaissance; (5) The Machine Age, in the Light of the Industrial Revolution. The *Twelfth Grade* took for its central theme "Living in Contemporary America." The specific content shifted from year to year in terms of the needs and interests of the students, but an understanding of present-day social and economic life was emphasized through direct experience such as contacts with social agencies, trips to theatres, to art galleries, to Washington, and in the case of one group, to the Tennessee Valley Project. Newspapers, magazines, the radio, and current literature all played a prominent part in interpreting the present American scene.

These courses drew upon all pertinent subject matter regardless of the field. "Multiple teaching" was emphasized in order to secure the contributions of appropriate staff personnel. However, as teachers gained experience in the program, the number of teachers actually involved decreased.

The remaining part of the school day was devoted to special-interest classes in the various subject fields.

An analysis of the Lincoln School program indicates that the central emphasis was placed upon the contemporary world and the American scene, with historical backgrounds playing an important but subordinate role. There was a decided tendency also to promote learning through direct experience, rather than exclusively through books. Systematic organization of subject matter in terms of the evolution of ideas provided the general framework. Consequently, it is probably fair to regard the program as subject-centered rather than experience-centered. It follows, then, that it was oriented in terms of adult living rather than adolescent living, though the actual problems which young

people face were stressed within the predetermined framework.

Since the close of the Eight-Year Study, the Horace Mann and Lincoln Schools have been combined. The core curriculum has been continued during this period with the retention of some features of the curriculum of both schools. The program appears to be undergoing changes in the direction of a greater emphasis upon the contemporary scene, particularly as it relates to problems of youth.

THE CONTEMPORARY-PROBLEM CORE. The trend toward the contemporary scene is even more apparent in the Santa Barbara County program.⁷ The following are illustrative of problems (or units) which are suggested at the various grade levels: *Ninth Grade:* Preventing Accidents, Planning for My Education; Making Our Water Supply Serve Human Needs; Planning My Vocation; Becoming Acquainted with Our School; Securing Mental and Physical Health. *Tenth Grade:* Using Leisure Time Wisely; How Can We Better House the Nation; Influencing Public Opinion; Improving Relations with Latin America; Promoting International Understanding; Spending Your Money Wisely; Conserving Our National Resources; Providing for National Defense; Appreciating the Contributions of Other Cultures; The Function of Religion in a Democracy. *Eleventh Grade:* Agencies of Mass Communication; Building a Happy Home Life; Regional Planning for the Use of Our Resources; Securing Justice; Making Machines Serve Mankind; Protecting Civil Liberties; Keeping the Government Responsible to the People. *Twelfth Grade:* Improving Our Relations with Latin America; Preventing Crime; Building a Happy Home Life; Providing Public Education; Protecting Civil Liberties; Improving Relationships Between Racial and Cultural Groups; Keeping the Government Responsible to the People; Finding the Right Job.

The authors point out that most of the problems listed at the various grade levels would be applicable at different grade

⁷ *Santa Barbara County Curriculum Guide for Teachers in Secondary Schools.* Santa Barbara, The Schauer Printing Studio, Inc., 1941, pp. 41-42.

levels if properly developed. As a matter of fact, in a few cases the same problems appear at different grade levels. The general listing of problems at various grade levels is held by the authors to be necessary in order "to avoid repetition on the part of students transferring within a school to a class studying the problem taken up in their previous group."⁸

This program breaks completely with the culture-epoch or historical-continuity approach. The problems are selected because they relate the functions of living to the broad "integrating theme" for each grade level, and because they meet the common needs and interests of the students of a given maturity level.

In addition to the core program which is designed to meet the common needs of all students, an elective program composed of special-interest subjects is provided.

As in all of the programs that are based upon the "functions of living" technique, the central emphasis is placed upon problems of adult living, though in addition to this emphasis, the units studied are so developed as to relate closely with the problems of adolescent living. The units do not appear to be experience-centered, but certainly much direct experience is utilized by the resourceful teacher as he plans with the students.

THE ADOLESCENT-NEEDS CORE. Under the impetus of the Eight-Year Study, a number of schools reorganized their curriculums in a somewhat more drastic fashion. Acting upon the thesis that the core curriculum should be based upon the relatively common and democratically significant needs, problems, and interests of adolescents in our culture they developed core curriculums which broke rather sharply with the unified-studies, culture-epoch, and contemporary-problem cores which have been described in the preceding discussion. The programs of two such schools will be described briefly.

The Denver program in the Eight-Year Study⁹ was carried out primarily in the five senior high schools of the city. The

⁸ *Ibid.*, p. 41.

⁹ *Thirty Schools Tell Their Story*. op. cit., pp. 170-185.

schools were quite free to develop their own programs. This resulted in considerable diversity, but in general the pattern of "areas of activity" which the schools employed were quite similar. The basic idea of the core was that the program should be "concerned with a continuous attack upon the problems which are persistent in the lives of adolescents as members of a democratic society."¹⁰ The following are typical of the problem or activity areas from which units were developed through teacher-student planning: Understanding Ourselves, Developing Interests and Appreciations, Personal Health and Appearance, Developing a Philosophy of Life, Orientation to the School, Exploring the Problems of Living in a Modern Family, Community and Region, Understanding and Interpreting our American Heritage, Comparing Democracy with Other Forms of Political and Social Organizations, Facing and Helping to Solve Social Problems, Gaining an Understanding of International Affairs, Public Opinion, Production and Distribution of Goods and Services, Consumer Problems, Impact of Technology upon Living, Conflicting Economic Systems, Vocational Aptitudes and Opportunities, and Problems of Employment.

It is impossible, of course, to get an adequate conception of the content of a problem area from general statements like those above. In order to give the reader a clearer idea of the nature of a problem area, the first one listed is broken down as follows:

1. Understanding Ourselves through:

- a. Discovering our interests, aptitudes and powers
- b. Measuring the extent of our information in important areas of knowledge
- c. Analyzing our use of time and effort and planning more constructive ways of living
- d. Studying the problems of physical health, with special reference to our own capacity for work, play, and rest
- e. Studying the problems of mental health and adopting ways of achieving balance and control and seeing the relationship between health and personality
- f. Becoming aware of our vocational interests and general vocational aptitudes.¹¹

¹⁰ *Ibid.*, p. 172.

¹¹ *loc. cit.*

The Denver program as described above encompassed the work of the senior high school (grades ten through twelve) and in most cases, the units were planned and taught cooperatively. In most schools the core period was two hours in length. It accounted for approximately half of the students' work, the other half being made up of physical education and elective subjects of the conventional sort. The entire program was oriented in terms of a democratic philosophy which the schools had developed cooperatively. In other words, the curriculum was given direction by the ideals of our democratic culture. The teachers sought to meet the needs of the students in such a way as to develop the characteristics of behavior which are basic to the democratic way of life.

At the close of the Eight-Year Study, the Denver schools were faced with the problem of extending the values of the study which seemed most significant. There was general agreement that cooperative planning among teachers, teacher-student planning, concern for the personal, social, and economic problems of youth, and a curriculum which met the needs and interests of young people were practices which promised most for the achievement of democratic values. There was also agreement that the extended time which teachers and students remained together in the core was valuable from the standpoint of effective guidance.

In order to conserve and extend these values, curriculum revision, begun in the Eight-Year Study, has been continued. At the present time, every junior high school has a "general education" program which cuts across subject lines and deals freely with the life problems of students. In general, this program occupies three periods of a six-period day in the seventh grade, two in the eighth and one in the ninth. The counseling teacher and a group of students remain together over the entire three-year period of the junior high school. A committee is now studying the selection and allocation of units of work at the junior high-school level.

In the senior high schools, a one-hour course in "general education" was instituted which dealt with the personal, social,

and economic problems of youth and was required of all students. The same counseling teacher stayed with a particular group during the three-year period. This program has persisted in two of the schools. Plans are now underway to put into effect in all of the senior high schools a three-year guidance program, which would "provide for some of the most vital common learnings of young people in a democratic society."

The general scope of the core curriculum in Tulsa, Oklahoma¹² was quite similar to that of Denver. The following major headings, stated in terms of student problems or "experiences" are typical:

1. How can I keep well?
2. How can I improve my appearance?
3. How can I help others to keep well?
4. Am I developing as I should?
5. How can I get the most out of my school experience?
6. How can I be happy in my home relationships?
7. What part does religion play in our lives?
8. How should I treat people of other races?
9. How do workers and employers cooperate for our good?
10. Why are there so many accidents?
11. How do we form our beliefs?
12. Why is there so much crime?

Since its beginning in 1930, the Ohio State University School has organized its curriculum in terms of a core, required of all students, in combination with broad-fields and special-interests subjects. The program has been reorganized from time to time as a result of faculty and student planning. A rather complete reorganization is now being tried experimentally. This program is the result of several years of study which embraced educational philosophy, the health program, student development, and an inventory of student problems.¹³ "Problems Areas"

¹² See *Ibid.*, pp. 638-659, and *Building a Core Curriculum in the Tulsa Public Schools* (a mimeographed bulletin).

¹³ See: *How Children Develop*. A report of the faculty of the University School, Columbus, Ohio State University, 1946. Committee on Problem Study, *An Inventory Study of the Personal and General Social Problems of 256 Students in Grades Seven to Twelve*, Inc. Columbus, The Ohio State University School, 1940. Rose Lammel (Ch.) "Improving the Health Program of the Ohio State University School," *Educational Research Bulletin*, XII, 143-162 (September 15, 1943).

are identified in three major areas of living as shown by the following outline: ¹⁴

A. PERSONAL LIVING (*Problems related to growing up.*)

1. Understanding my body.
2. What are my beliefs and how are they formed?
3. Are there any hobbies in which I could become interested or proficient?
4. How can I look my best?
5. How can I develop my personality to the fullest?
6. How should I manage my personal affairs?

B. PERSONAL-SOCIAL PROBLEMS (*Problems related to being with others.*)

1. How can recreation contribute to my social growth?
2. What are the problems of living in University School?
3. What are the problems of living in my own home?
4. What organizations in the community should I be interested in?

C. SOCIAL-CIVIC-ECONOMIC PROBLEMS (*Problems of living in and understanding society.*)

1. How do people in other countries live?
2. How do people communicate ideas to one another?
3. How do people earn a living in Columbus?
4. How does Columbus protect its people?
5. How is Columbus governed?
6. How is Columbus housed?
7. How is recreation supplied to the people of Columbus?
8. What kinds of people live in Columbus?
9. What are the natural resources of Ohio?
10. What kinds of people do we have in Ohio?

These problem areas are to be utilized by teachers of the seventh, eighth, and ninth grades for the purpose of planning

¹⁴ Summarized from a mimeographed bulletin entitled "A Proposal for a Core Curriculum in Grades Seven, Eight, and Nine." Columbus, The Ohio State University School, 1945.

and developing learning units cooperatively with students. These units will draw freely from all fields that are appropriate. At the present time, these problem areas are suggested only, with the exception of "Understanding My Body," which is required at the seventh-grade level.

In addition to planning and developing learning units in the problem areas listed above, the core class is responsible for: activities related to school organization, immediate problems of group living (e.g. planning class dances, class finances, participation in Red Cross drives), free reading and free writing, and free choice experiences in other areas (science, arts, physical education, social science, and mathematics) to the extent that it is feasible.

The core teacher, in addition to carrying out the above duties, is responsible for guiding and counseling students, and for keeping all records and materials related to the learning unit. The core teacher also acts as chairman of the grade faculty.

The actual classroom instruction is carried on mainly by the core teachers, with the assistance of special-area teachers when the learning situation demands technical knowledge and ability. All members of the teaching staff of a particular grade participate freely in preplanning learning materials under the direction of the core teachers.

A PROPOSAL FOR A COURSE IN COMMON LEARNINGS

The trend toward the development of core curriculums is recognized by the Educational Policies Commission¹⁵ in its proposals for high-school curriculum reorganization in the post-war period. It recommends a course in "common learnings" extending from the seventh through the fourteenth grade.

¹⁵ *Education for All American Youth*. Washington, National Education Association, 1944. An excellent pictorial summary of the above volume has been published by the National Association of Secondary-School Principals. It is entitled: *Planning for American Youth*. For a suggested plan by which a school may study these proposals, see *Where Do You Stand? Twelve Issues for the Secondary Schools of Philadelphia*. Philadelphia, Philadelphia Public Schools, 1945.

THE CURRICULUM IN AMERICAN CITY

THE PUPILS IN AMERICAN CITY ARE AT PRESENT WORKING WITH
A CURRICULUM WHICH CONTAINS THE FOLLOWING MAJOR AREAS:

Personal interests—grades 7, 8, 9

Individual interests—grades 10-14

Vocational preparation—grades 10-14

Common learnings—grades 7-14

Health and physical fitness—grades 7-14

	GRADES													
	Early Secondary School			Middle Secondary School			Advanced Secondary School or Community Institute							
Periods per day	7	8	9	10	11	12	13	14						
1	PERSONAL INTERESTS Exploration of personal abilities and individual interests; discovery of interests in art, music, science, languages, sports, crafts, home and family problems, and leisure activities.			*INDIVIDUAL INTERESTS Election by the pupil under guidance of teacher in fields of avocational, cultural, or intellectual interest.										
2														
3				VOCATIONAL PREPARATION Includes the study of sciences, mathematics, social studies, literature, and foreign languages, in preparation for advanced study in Com- munity Institute, college and universities, as well as education for industrial, commercial, homemaking, service and other occupations, leading to employment, apprenticeship or homemaking at end of grade 12, 13, or 14, and work experience.										
4														
5	COMMON LEARNINGS A continuous course in Social Living to foster growth in personal living and in civic competence. Guidance of individual students is a chief responsibility of Social Living teachers.													
6														
				HEALTH AND PHYSICAL FITNESS Includes games, sports, and other activities to promote physical fitness, together with the study of individual and community health.										

* Broken line indicates flexibility of scheduling for youth who need to spend more time in either of these areas, depending upon their occupational or future education plans.

The common learnings course is to be required on the grounds that it meets three of the imperative needs of youth:

1. Their need to grow in understanding and in competent performance of their obligations as members of the community, state, and nation.
2. Their need to grow in the skills, knowledge of social and ethical principles involved in their relations with other people, particularly in family life.
3. Their need to grow in the understanding of democratic principles, in their appreciation of the scientific method, and in their acceptance of the values basic to our civilization.¹⁶

The curriculum which is designed to meet these "imperative needs" is flexible. The general purposes are planned in advance, but specific content is determined cooperatively by teachers and students. The general structure of the curriculum is embraced in the following suggestions:¹⁷

GRADES SEVEN, EIGHT, AND NINE. Personal problems, orientation to the school. The community: housing, distribution of goods, food, etc. The state: history and development, basic principles of American democracy, great leaders, and the way science and technology have changed our ways of living. Skills are taught in relation to their use.

GRADE TEN. Orientation to the senior high school. Basic understandings of personal abilities in mathematics, English, and study habits. Budgeting time. How people live in the American city. Appraising occupational qualifications. Studying how the economic system works. Family life, labor unions and management. Sanitation and community health, consumer spending, and personal problems.

GRADE ELEVEN. Civic competence and leadership, civic improvements, community housing and welfare, city planning, employment. These problems were all studied in relation to the national scene, and also in their historical prospective. Literature and history, personal visitation, visual aids, and the like, are utilized in the development of these problems.

GRADE TWELVE. A study of national problems in a world setting (e.g. production and employment, and international organization for peaceful living). Personal problems, especially those involving family

¹⁶ *Planning for American Youth*. p. 44.

¹⁷ *Ibid.*, pp. 44-45.

living, and the responsibility of homemakers. Special emphasis is placed upon a unit on "Friendship, Courtship, and Marriage." Literature and art of our own and other nations is utilized freely at this level.

In addition to instruction in the common learnings listed above, the unified classes are responsible for guidance and school government.

The course in common learnings is but one aspect of the curriculum. The Chart on page 170¹⁸ indicates the major areas, and the distribution of time of each in a school day of six periods.

An examination of the proposed common learnings curriculum indicates that in terms of conventional subjects, the social studies, art, and literature are unified, and basic skills are taught as needed. Science is to a large extent taught as a personal or individual-interest subject. The authors explain the omission of science and health as follows:

American City teachers of common learnings are not yet ready to teach effectively materials in the fields of science and health, but they feel that the basic understandings in these fields should eventually become a part of the courses in common learnings. They are, therefore, studying these problems, hoping to move in this direction as fast as their own command of these fields will permit.¹⁹

This confession of the inability of teachers to deal with basic understandings in science and health presents a challenge to teacher-education institutions.

The survey of some current proposals and practices in core-curriculum development has now been completed. These programs vary from "putting subjects together" in a mechanical manner to a sincere attempt to disregard subject-matter lines in meeting the needs of the adolescent. It is safe to say that as yet no distinct pattern of development has emerged. The theory of core-curriculum development is reasonably clear, but practice is colored by traditional values which are held by teachers and which, in their judgment, have to be preserved at all cost. This results in confusion as teachers try to achieve conflicting values.

¹⁸ *Ibid.*, p. 47.

¹⁹ *Ibid.*, p. 45.

DEVELOPING A CORE CURRICULUM²⁰

The suggestions that follow are intended to bring together some of the more significant aspects of evolving programs. Most of the suggested problem areas for developing resource and/or learning units have been tried out successfully, but the writer knows of no school that has followed the general pattern.

The program is not intended as a blueprint which any school might follow. A particular school would need to take the following steps before determining the problem areas in which units were to be developed.²¹

1. Formulate its basic philosophy.
2. Make a study of the needs, problems, and interests of the student group and compare the results with other studies. (See Chapter III.)
3. Determine the functions and scope of the core, and of the other aspects of the curriculum (e.g. broad-fields, special-interest areas, or subjects).
4. Develop a plan of organization, time allotment, etc., for the core and for other curricular activities.

SUGGESTED PROBLEM AREAS. The proposed problem areas have been selected because of their potentialities for meeting the common problems of adolescents, and for extending the range of their interests. At the same time, they may be so developed as to facilitate the development of the characteristics of personality (social sensitivity, reflective thinking, tolerance, respect for personality, etc.) which was held to be essential for democratic living.

The four categories, Immediate Personal-Social Problems, Immediate and Wider Community Problems, Wider Socio-economic Problems, and Personal Development Problems are merely convenient ways of classifying the problem areas to in-

²⁰ In preparing this section, the writer has drawn heavily upon his article entitled "Reorganizing the Junior High-School Curriculum," *Bulletin of the National Association of Secondary-School Principals*, XXIX, 17-28 (April, 1945).

²¹ See Chapter XV for a more detailed plan of curriculum reorganization.

sure balance and broad scope. Obviously they are interrelated and somewhat overlapping.

The proposed problem areas may be used in a number of ways. *First*, they may be used as bases for developing resource units²² which teachers would find helpful in the cooperative planning and teaching of learning units in a particular class; *second*, they might serve as a means of helping to locate the problems of a particular class of students, or as centers for the cooperative planning of learning units. In any event, they would need to be broken down in order to indicate more specifically the scope of each.

I. IMMEDIATE PERSONAL-SOCIAL PROBLEMS

Grades Seven, Eight and Nine:

Orientation to the School, Living in the Home, Making and Holding Friends, Sex Relationships.

Grades Ten, Eleven, and Twelve:

Education in American Democracy, The Family in Civilization, Improving Home Life, Boy-Girl Relationships.

II. IMMEDIATE AND WIDER COMMUNITY PROBLEMS

Grades Seven, Eight, and Nine:

Living in the Community, Community Agencies and Services, Community Recreation, Community Citizenship, Communication, Transportation, Beautifying the Community, The Air Age,²³ How People in Other Lands Live, Our Latin American Neighbors.

Grades Ten, Eleven, and Twelve:

Community Survey, Community Health, Community and National Planning, War, International Organization, Role of America Among the Nations, Role of Government, The American Tradition, Contemporary Cultures, Contemporary Religions, Propaganda Analysis, Public

²² See Chapters IX, X, and XI.

²³ See Chapter XI for a resource unit in this problem area. See also Chapter XIII for a breakdown of several of these problem areas.

Opinion (newspaper, radio, movies), Races, Ethnic, and Class Groups.

III. WIDER SOCIOECONOMIC PROBLEMS

Grades Seven, Eight, and Nine:

How People Make a Living, Community Industries, Science in Our Daily Lives, Earning Money and Budgeting an Allowance.

Grades Ten, Eleven, and Twelve:

Selecting a Vocation and Getting a Job, Getting Your Money's Worth, How Technology is Changing Our Ways of Living, Conservation of Resources, Competing Economic Systems.

IV. PERSONAL DEVELOPMENT PROBLEMS

Grades Seven, Eight, and Nine:

Life and Growth, Maintaining Good Health, How We Get Our Beliefs, Personal Planning, Personal Appearance and Grooming, Developing Intellectual, Aesthetic, and Practical Interests.

Grades Ten, Eleven, and Twelve:

Personality Development, Developing Intellectual, Aesthetic, and Practical Interests, Building a Social Outlook, Competing Philosophies of Life, Intelligence and Learning.

Some Generalizations that Apply to the Suggested Problem Areas:

1. They are closely related to the common persistent problems which young people face in our confused culture.
2. They have potentialities for developing the characteristics of personality which are desirable in our democratic society.
3. When properly handled, they transcend any one subject or field (e.g. social studies, science, English, the arts).
4. They are at the maturity level of most adolescents.

5. They are sufficiently diversified to include the major aspects of living.
6. They are sufficiently comprehensive in scope to provide opportunities for meeting the wide range of individual differences that exists in any group of adolescents.
7. They bridge the gap between the immediate felt needs of the student and the demands of adult society.
8. They encourage and facilitate cooperative planning and teaching, as well as teacher-student planning.
9. They require knowledge and skills in fundamentals (reading, writing, etc.) but may be carried out with a minimum of laboratory exercises, equipment, and drill.
10. They encourage the unification of knowledge in the various fields.
11. They are easily related to the guidance and homeroom program.
12. They have potentialities for stimulating new interests and appreciations, which may be carried forward in the special-interest areas.
13. They provide leads to many units of work.
14. They lend themselves readily to the extensive use of trips, direct experience, visual aids, library research, etc.

RELATIONSHIP OF THE CORE TO OTHER ASPECTS OF THE PROGRAM

SPECIAL-INTEREST AREAS. If the common needs and interests of the students are largely cared for in the core, the remaining part of the curriculum might very well consist of special-interest fields such as mathematics, science, languages, literature, history, the arts, and vocational education. For example, within a core period of two hours a core unit might be developed, and within this block of time provision would also be made for the development of related skills and abilities, school and class problems, and guidance. The remaining part of the school day might be devoted to the pursuit of special interests, chosen by the student with the help of his counselor,

and to student activities such as student council, assemblies, clubs, and the like.

What types of specialized interest activities should be provided by the school? This question can be answered only in terms of the nature of the student body and the community. The general principle which is involved would be that the school, within its financial limitations, ought to meet all of the specialized interests and needs of students. In practice, however, this is impossible, hence the school should meet as many as possible. This calls for the application of another principle. After making adequate provision for the meeting of all common learnings (e.g. the core curriculum), the school would then make provision for the meeting of those specialized interests and needs which were held by relatively large groups of students (e.g. the group that expects to enter industry immediately upon leaving the high school, or the college-bound group). After the specialized interests and needs of these larger groups are provided for, the school would then extend its program to care for smaller groups, the ultimate extension being a program that meets the specialized interests and needs of every student.

A minimum program for most schools would consist of a core curriculum to meet the common needs of students, adequate offerings in the prevocational and vocational fields, college preparatory subjects, and rich offerings in the field of the arts.

THE GUIDANCE AND COUNSELING PROGRAM. The core period would supplant the homeroom period and absorb many of its activities, including guidance and counseling. The problems discussed in the core unit are so intimately related to the personal problems of the students that group activities become organically related to the program of guidance. The very close relationship between the curriculum and guidance is discussed fully in Chapter XIII. A separately organized program of guidance and counseling is then necessary only to coordinate the guidance and counseling activities of teachers, and to deal with special cases which require extended study.

STAFFING THE CORE PROGRAM

By and large, teachers are not prepared for core-curriculum work. This calls for an in-service program of teacher education, as well as for shifts in emphasis in teacher-education programs in the colleges. However, even under present conditions, schools are finding it possible to staff the core satisfactorily. Several plans are in use, depending largely upon local conditions. The *coordinating teacher plan* is fairly common. A teacher of broad training and experience is assigned to each group of students as coordinator of instruction, and as counselor. This teacher is responsible for bringing together those members of the staff whose fields have major contributions to make to the unit which is to be taught, for pre-planning and for specialized instruction. Thus, in a unit of housing, the coordinating teacher, who might represent the field of home economics, would draw upon specialists in the fields of industrial arts, social studies, fine arts, science, mathematics, and health to secure help in building resource materials, in preplanning the unit, and in giving specialized instruction at appropriate points. The more general instruction would be given by the coordinating teacher. Some schools have found it satisfactory to employ the *one-teacher plan*, in which a single teacher gives all of the instruction, and is responsible for counseling. Needless to say, such a teacher should have broad understandings. A third type has become known as the *multiple-teacher plan*. In this scheme, the instruction is carried on by two or more teachers, representing different fields of specialization. These teachers have joint responsibility for teaching and counseling. Usually, when this plan is used, the size of the group is increased considerably in order to avoid increasing the cost of instruction.

INITIATING A CORE CURRICULUM

The discussion of the core curriculum in this chapter has been organized in terms of the progressive breaking down of subject lines and the substitution of a curriculum based upon

the needs, problems, and interests of adolescents in our democratic culture. The least radical proposal is the putting of two subjects together, e.g. English and social science, and teaching them as a unit, in terms of their many interrelationships. The most radical proposal suggests a core curriculum which draws upon all fields of knowledge in order to meet the needs, solve the problems, and extend the interests of the student. This proposal obviously involves a complete break with the traditional curriculum. Between these two extremes are the *Culture-Epoch* and the *Contemporary-Problem* types of core.

Where should a school begin? Should it adopt the principle of gradualism and begin with a modest experiment of unifying English and social studies in one section of the incoming seventh grade, or should it move directly to a completely reorganized program for the entire high school? The answer is not simple. The gradual program may bog down and be abandoned before it has a chance to evolve. The drastic reorganization may alienate the community and destroy the morale of the school. In a final analysis, the school will have to decide, in terms of its background, the climate of the community, the training of the teachers and their enthusiasm for the new program, the type of reorganization which gives the most promise of success. The important point is that the plan be democratically conceived and carried out. Implicit in this process is the possibility of change and refinement in the light of new experience.

SUMMARY

For many years the process of disintegration of logically organized subjects has been going on. This has resulted in the combination of subjects within a field, e.g. English and social studies. At the same time, the movement toward basic requirements for all students, designated by such terms as "constants," "general education," and the "core" has gone on apace. Both of these movements have been influenced by the need for unity of purposes in terms of the values of democratic living, and the new concepts of the organismic nature of the individual and of learning.

In the elementary area, which has been relatively free from

external domination, the reorganization of the curriculum has made much headway. In the high schools, the movement is just getting underway. The reorganization is taking the form of a program, required of all students, designed to meet the relatively common needs of the adolescent in our culture. The pattern varies from a subject-centered organization to one which is organized around the persistent problems of youth. These programs are gradually taking over the functions of the homeroom and of guidance and counseling.

In addition to the core of "common learning," provision is made for specialized-interest areas which are designed to provide rich offerings in terms of the special interests, needs, and problems of groups and individuals. Within the specialized-interest area, the "subject" plays an important role.

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PROCEDURES IN CURRICULUM REORGANIZATION

IN CHAPTERS IV AND V, TWO COMPETING CONCEPTS OF CURRICULUM organization were discussed—the subject-centered and the experience-centered curriculums. In Chapter VI, the various types of core curriculum—some based upon the subject-centered, and others on the direct-experience concept were analyzed and evaluated. The discussion indicated that the curriculum might be organized as follows: (1) Required and Elective Subjects, (2) Broad Fields, (3) Core, which might be of the unified-studies, contemporary-problems, or adolescent-needs type. These types may make use of organized subject matter and direct-experience to a greater or less extent. In any given curriculum, there might also be a combination of these types. Likewise, various procedures might be utilized in determining the learning activities to be included.

The present chapter presents a critical analysis of the five leading procedures in curriculum reorganization. They are as follows: The Textbook Procedure, the *Laissez Faire* or Opportunistic Procedure, the Activity-Analysis Procedure, the Social-Functions Procedure, and the Adolescent-Needs Procedure. These procedures have been used widely in curriculum-development programs. The last one mentioned came into prominence during the Eight-Year Study. This discussion concludes the treatment of the problem of determining the basic structure of the curriculum.

THE TEXTBOOK PROCEDURE

Since the American high school is still dominated by the textbook, it is not surprising that most curriculum reorganization activities are centered around the selection of appropriate textbooks. This may be done by state, city, county, or local school groups, depending upon the organization of the educational system. In some states, all basic textbooks are selected by the state board of education, by textbook commissions, or special committees appointed by the chief state school officer. In cities and counties, the procedures are much the same. They range from selection directly by the superintendent or principal, to selection by specially appointed committees of the teaching staff.

The basic assumption underlying this procedure is that the textbook writer is the expert. It is for him to determine what shall be taught in a particular subject. The school pronounces judgment upon the work of the various experts, and selects the books best suited to their particular needs. The teacher passes on the material to the student by means of daily or unit assignments. New subjects are added, or old ones dropped, in terms of the studies of student needs, external pressures, the teacher's preparation or special interests, or a host of other factors. In any case, essentially the same basic assumption is applicable. The textbook writer determines the content of the curriculum.

The textbook writer, of course, has recourse to many sources of data in order to determine what shall be included. Among these are reports of national committees and commissions, scientific studies of children's interests and problems, logical systems of knowledge worked out by other experts, vocabulary studies, experimental teaching carried on personally or by others and reported in the literature, studies of the basic philosophy of education and the psychology of learning. The textbook committee has to decide how effectively he has used the resources at hand. The important point to consider here is that the basic research is utilized by the textbook writer rather than by the

teaching staff of a particular school or by the teacher who uses the book.

If the selected books are not satisfactory, they may be displaced by means that are usually defined by law. Or they may be supplemented by other textbooks or by library reference materials. As a matter of fact, much of the literature in the field of method is devoted to helping the teacher to enrich the textbook by means of other teaching materials such as supplementary books, audio-visual aids, learning devices, and the like. Often the shortcomings of the textbook are compensated for by the teacher who refuses to be enslaved by it.

In Chapter IV, the advantages and disadvantages of this procedure in curriculum reorganization were pointed out. The disadvantages were seen to outweigh the advantages. However, in spite of this fact, it is still the most common procedure in curriculum reorganization in the American high school.

THE LAISSEZ-FAIRE OR OPPORTUNISTIC PROCEDURE

In some schools the pendulum has swung far in the opposite direction. The choice of curriculum materials is largely left to the individual teacher who by some means or other finds out what ought to be done next, and then assembles the available resources, and tries, sometimes frantically, to secure other materials from outside sources such as libraries and publishers. Some of the so-called child-centered schools adopted this procedure. There was little or no advance planning. The curriculum of the school was recorded at the end of the year. Needless to say, in this procedure there is great danger that efforts of teacher and students will be scattered and dissipated, significant problems overlooked, and worthwhile objectives of education not realized. Hence, the plan—if it may be called a plan—deserves all the criticism that has been heaped upon it by the traditional educator and by the critics of the school. As a matter of fact, much of the criticism of progressive education is based upon the assumption that the above procedure is characteristic of *all* pro-

gressive schools. That such is not the case is discoverable by anyone who investigates the programs of the better schools of today.

THE "SCISSORS-AND-PASTE" PROCEDURE

Some schools have drawn heavily upon the curriculums that have been developed by other schools—so heavily, in fact, that it is almost impossible to detect any basic differences. For example, among state curriculum reorganization programs, the basic features of the Virginia Plan have been very popular, and have been widely copied. Needless to say, there is no reason why the good features of a given curriculum plan should not be utilized by others. However, when a plan is adopted by a school without intensive study and investigation, it is apt to be external and completely devitalized. In such cases, the teachers usually fall back on the textbook as the source of material simply because the "new" curriculum has never been made a part of their thinking. The attempt to reconstruct the curriculum by "scissors-and-paste" methods is at least indicative of a desire to improve the program of the school and as such is to be commended. However, as a procedure in curriculum reorganization, it has little or nothing to recommend it.

THE ACTIVITY-ANALYSIS PROCEDURE

Curriculum makers have been greatly influenced by a movement known as activity analysis which had its beginning more than a quarter of a century ago,¹ and had considerable vogue in the decade of 1920–1930. It is discussed here because many of the procedures advocated have been carried over into present-day curriculum reorganization programs. The basic idea was exceedingly simple. An analysis of human activity should be made in order to find out what activities people perform in the

¹ Franklin Bobbitt, *The Curriculum*. Boston, Houghton-Mifflin Company, 1918. ———, *How to Make a Curriculum*. Boston, Houghton-Mifflin Company, 1924. W. W. Charters, *Curriculum Construction*. New York, The Macmillan Company, 1923.

significant areas of human experience. As Bobbitt states, "education is to prepare men and women for the activities of every kind which make up, or which ought to make up, well-rounded adult life."² Having discovered these activities, the job of the school is to teach students to perform them. The activities of adult life are the specific objectives of the curriculum. The activities by which students *learn* to perform them is the curriculum.

Bobbitt proposed a classification of major activities of life as the basis for his analysis. Since it has been widely used, it is probably worthwhile to quote it:

1. Language activities: social intercommunication.
2. Health activities.
3. Citizenship activities.
4. General social activities, meetings and mingling with others.
5. Spare time activities, amusements, recreation.
6. Keeping one's self mentally fit—analagous to the health activities of keeping one's self physically fit.
7. Religious activities.
8. Parental activities, the upbringing of children, the maintenance of a proper home life.
9. Unspecialized or non-vocational practical activities.
10. Labor in one's calling.³

Bobbitt then proceeded to analyze each of these major categories into appropriate specific subdivisions. The first nine categories yielded 821 specific objectives, stated as abilities, skills, habits, and knowledge. Thus, the objectives of education for any one individual would be the 821 specific objectives in the first nine categories plus the specific objectives called for in the particular vocation selected by that individual. These would be determined by the same activity-analysis technique. Bobbitt makes it clear that what he is proposing is a technique for curriculum making, not a curriculum. His analysis is suggestive of the kind that should be made.

Two difficulties immediately confront the curriculum maker who utilizes the activity-analysis technique. First, he recognizes that there is a very great difference between the activities that

² Franklin Bobbitt, *How to Make a Curriculum*, p. 7.

³ *Ibid.*, pp. 8-9.

people actually perform and those that they ought to perform in terms of the ideals and values held to be significant in the culture. In other words, a guiding philosophy is essential if the analysis of human activity is to be of value. The acceptance of this conclusion, however, tends to throw doubt on the analysis technique, for if the analysis is to be made upon the basis of a philosophy, it no longer possesses the objectivity which is one of the chief claims of its adherents. When "oughtness" is brought into the picture, the activity-analysis procedure tends to bog down, for the activities which people ought to perform may not exist at any given time; hence, they could not be discovered by analysis. There have been many attempts to meet this criticism such as the selection of the "best" citizens and making an analysis of their activities; securing the judgment of "frontier thinkers" on what activities the good citizen ought to perform, and obtaining the consensus of opinion of large numbers of people on appropriate activities. Undoubtedly these techniques yield valuable data for the curriculum maker, but cannot be relied upon as an all-inclusive and complete technique for curriculum making. In the second place, assuming that such an analysis of human activity could be made, society is changing so rapidly that it would be out-of-date by the time it was completed. It should be pointed out, too, that even though such an analysis could be made, the resulting curriculum would be adult-centered rather than student-centered.

While no one has succeeded in analyzing all of the activities in which people engage, to say nothing of the activities in which they ought to engage, the technique has proved exceedingly valuable in analyzing certain segments of experience—particularly in the vocational field. Charters has pioneered in this field, and has applied the technique in such fields as nursing education, pharmacy, stenography, teacher education,⁴ and the like. It has also been used to determine what ought to be taught in given subject fields.⁵

⁴ See W. W. Charters and Douglas Waples, *The Commonwealth Teacher Training Study*. Chicago, The University of Chicago Press, 1929.

⁵ See W. W. Charters, *op. cit.*, Part II, for an excellent survey of studies in curriculum making in various subject fields.

The activity-analysis procedure succeeded in sensitizing the curriculum maker to the need for examining curriculum materials from the standpoint of their actual function in human activities. In this way, he succeeded in eliminating from the curriculum much material that could be justified only on the basis of an outworn psychology, or of tradition. As we examine current procedures in curriculum making, we shall see that its influence continues to be felt. In general, we may say that it was a step forward in curriculum making when viewed in the perspective of the past. Activity analysis is still an important tool in curriculum reorganization.

There are two present-day movements in curriculum reorganization that are worthy of rather careful consideration. The first procedure has been designated by various terms such as the "Social-Functions," the "Social-Demands," "Areas-of-Living," and "Scope-and-Sequence" procedure. The second has become known as the "Adolescent-Needs" procedure. By some they are regarded as antithetical, but it will be shown later that they have very much in common, and may lead to similar curriculum practices and organizations.

THE SOCIAL-FUNCTIONS PROCEDURE

DETERMINING PHILOSOPHY. This procedure dominated the curriculum reorganization field during the decade from 1930 to 1940. The extent to which it will continue to do so is problematical. However, because of its widespread use, it will be given rather extensive treatment at this point. Basic to this procedure is the formulation of a guiding philosophy of education. This may take any number of forms, but in general consists of setting up the purposes of education in the light of (1) the ideals of democratic living, (2) the nature of the individual, (3) the nature of learning and (4) the role of the particular school.^a

DETERMINING SCOPE. The next step after having determined the philosophy, is to agree upon a basic classification

^a See Chapters II and XV.

of the major "functions" or areas of living. This plan of determining scope seems to have been utilized first by W. W. Charters, who made an analysis of the activities of women at Stephens College in 1921. The first thoroughgoing plan for applying it to the curriculum of the secondary schools was made in Virginia under the direction of Caswell and Campbell in 1934.⁷

What is a social function of living? According to the above-mentioned authors, "study of group life shows that there are certain major centers about which the activities of individuals and the plans and problems of the group tend to cluster. These centers, which may be referred to as social functions, tend to persist and to be common for all organized groups. For example, certain of the activities of primitive tribes tended to center around protection of the lives and properties of the members of the group. In group life today protection of life and property continues to be an important function about which many activities cluster and from which a group of related problems and issues arise. Since these centers or social functions represent points about which real life activities tend to gather and organize, it is considered reasonable that a curriculum which is concerned with guiding children into effective participation in the activities of real life may use these social functions or points of emphasis and orientation in outlining the curriculum."⁸ Perhaps the best way to clarify the functions of living is to present the following list adopted by the State of Virginia as a basis for its curriculum: (1) protection and conservation of life, property, and natural resources, (2) production of goods and services and distribution of the returns of production, (3) consumption of goods and services, (4) communication and transportation of goods and people, (5) recreation, (6) expression of aesthetic impulses, (7) expression of religious impulses,

⁷ See H. L. Caswell and D. S. Campbell, *Curriculum Development*. New York, The American Book Company, 1935, pp. 173-186. Henry Harap, ed., *The Changing Curriculum*. New York, D. Appleton-Century Company, Inc., 1937. *Tentative Course of Study for Virginia Elementary Schools*, Richmond, State Board of Education, 1934.

⁸ Caswell and Campbell, *op. cit.*, pp. 173-174.

(8) education, (9) extension of freedom, (10) integration of the individual, and (11) exploration.

Following the lead of Virginia, many attempts have been made to determine the major functions or areas of living. How shall this be done? Obviously, it calls for some such analyses as those proposed by Bobbitt and Charters. The difficulties of making such analyses have been pointed out earlier. When we consider that the "functions of living" are to be universal, in the sense that they apply to all cultures past and present, the task of direct analysis is impossible. Hence, some shortcut is needed. Two of these will be discussed in order to see just how categories of social functions or areas are derived by the curriculum maker.

Henry Harap set up criteria for examining lists of categories, and for determining their suitability for curriculum making. They are as follows:

(1) Do the categories relate to living, or are they external to the individual? (2) Are the categories easily broken down into units of learning experience? (3) Do the categories parallel definite areas of living as distinguished from mere adult abstractions? (4) When actually applied, do the categories anticipate bodies of experience as contrasted with traditional subjects? (5) Do the categories reflect the learner's organization of learning experience; are they meaningful to the learner? (6) Do the categories consistently lend themselves to the development of a series of goal-seeking experience? (7) Do the categories have tangible limits in time and space to a large degree? (8) Do the categories represent a coherent and balanced sampling of social living?⁹ Harap applied these criteria to thirty lists of classifications of areas of living and concluded that the following list met them most satisfactorily: (1) Living in the Home, (2) Leisure, (3) Citizenship, (4) Organized Group Life, (5) Consumption, (6) Production, (7) Communication and (8) Transportation.

O. I. Frederick¹⁰ directed a study of the same problem but with a somewhat different technique. He selected thirty-eight

⁹ Henry Harap, *op. cit.*, p. 95.

¹⁰ O. I. Frederick, et al., *Areas of Human Activity and Problems of Life* (mimeographed). Jackson, Mississippi State Department of Education, 1937. See also O. I. Frederick, and Lucile J. Farquar, "Areas of Human Activity," *Journal of Educational Research*, XXX, 672-679 (May, 1937).

"classifications of human activities." These were chosen from formulations of curriculum-making groups, sociologists, anthropologists, "intelligent American club women," and writers of "ideal commonwealths." A frequency count of the various areas included by each writer was made, and it was found that the "*universal types of activity*, activities in which men have always engaged and probably always will be engaged," could be classified into nine areas, as follows: (1) protecting life and health, (2) securing a living, (3) making a home, (4) expressing religious impulses, (5) expressing aesthetic impulses, (6) securing education, (7) cooperating in social and civic action, (8) engaging in recreation, and (9) conserving and improving material conditions.

In order to determine whether or not these nine areas included "all vital problems of human activity," an analysis was made of forty-four recent books dealing with trends and problems of contemporary life. This reading yielded 349 problems and needs of human life, which were classified under the nine areas of human activity. Space does not permit the listing of all of these problems and needs of living. However, in order that the reader may get the general flavor of the entire list, the major problems under the first area, *Protecting Life and Health*, are listed. They are as follows: (1) making the school environment more healthful and safe, (2) cooperating with health agencies for a more healthful community, (3) practicing habits of personal hygiene, (4) preventing and controlling disease, (5) protecting life from accidents, (6) securing and maintaining mental and emotional health, (7) protecting the consumer from fraudulent and harmful medical goods and services, (8) developing an adequate medical service for all persons at reasonable cost, (9) promoting and utilizing medical research, (10) conserving and increasing the racial vitality of the American people.¹¹

These problems are to serve as the basis for the curriculum. The use of the nine areas of human activity guarantees that each individual will participate in all the significant areas of living,

¹¹ O. I. Frederick and Lucile J. Farquhar, "Problems of Life," *School Review*, XLVI, 337-345; 415-422 (May and June, 1938) pp. 341-342.

and the use of the problems will facilitate an acquaintance with the problems of contemporary living. On this point the committee writes: "At different grade levels, the problems would be used in different ways by the teacher. In the elementary grades only the broad, general aspects would be advisable. High-school pupils, on the contrary, would be interested in depth as well as breadth and so would go into these problems in detailed fashion."

Out of more than a score of possible lists of "human activities" that have been utilized in curriculum making, we shall present only two additional ones. These are selected because they are still playing a significant role in curriculum reorganization programs. The Kansas State Program¹² is based upon the following areas: (1) protecting human and material resources, (2) making a living, (3) producing and distributing goods and services, (4) making a home (largely consumption), (5) governing the group, (6) providing and expressing recreational, aesthetic, and religious impulses, (7) providing education, and (8) developing and controlling communication and transportation. These eight areas of living are derived from the "list of major areas of human activity" developed by Frederick and others for the State of Mississippi. The universal character of the list is emphasized. The bulletin states that "certain problems of living in each of these areas persist through all ages. Each generation meets them conditioned by the characteristics of the current age. Education should help each generation to solve these persisting problems. The school shall provide opportunity for pupils to become sensitive to and gain understanding about them."¹³ For purposes of comparison with a state program, the Santa Barbara, California list is herewith presented: "(1) developing and conserving personal resources, (2) developing and

¹² *The Kansas Program for the Improvement of Instruction*. Bulletin No. 6. Topeka, Kansas State Department of Education, 1939. This program has been widely studied and utilized by curriculum reorganization groups, even though, according to a report of the State Department of Education, it has never been in general use in the schools of Kansas. Material from the bulletin is quoted by permission of the State Department.

¹³ *Ibid.*, p. 16.

conserving other than personal resources, (3) producing, distributing, and consuming goods and services, (4) communicating, (5) transporting, (6) recreation and playing, (7) expressing and satisfying spiritual and aesthetic needs, and (8) organizing and governing.”¹⁴ As in the Virginia, Mississippi, and Kansas Programs, these areas are the “basic functions of human living common to all cultures regardless of time or place.”

In the preceding section, a survey of some of the leading classifications of social functions, or areas of living was made. It was shown that they are quite similar, differing principally in the manner of grouping, and in wording. Essentially they are all derived from the same general sources, and serve the same general purposes in curriculum making. What are the basic assumptions that underlie them and what are the purposes which they serve?

It has been pointed out (Chapter IV) that the subject-centered curriculum provides for scope through the various subjects. Each subject is composed of logically organized facts, principles, and generalizations that are peculiar to it. The range of subjects offered and the content of each subject defines the scope of the curriculum. Obviously, the curriculum maker has in mind some idea of the essential areas of human activity and tries to cover them by the inclusion of a wide variety of subjects. The curriculum movement described above simply makes the areas of living more explicit and more central. This is necessary because most of the programs which are described break more or less with the subject-centered point of view. To the extent that they discard separate subjects as a basis for determining curriculum content (scope), there is need for some structure or framework for the curriculum. The “areas of human activity” provide that structure.

As a reaction from the traditional subject-centered program, there is a strong emphasis upon the contemporary, upon actual problems of present-day living. But upon what problems? There is need for some device for helping to answer this question. The

¹⁴ *Experimental Curriculum in the Santa Barbara City Schools*. Bulletin I, Revision No. I. Santa Barbara, Board of Education, 1941.

coverage should be complete. In order to guarantee that no major problem shall be neglected, categories that embrace all the areas of human activity are set up. Insofar as is possible, all levels of instruction and all areas are expected to include activities that have a bearing upon all the areas of human activity that are established. This does not mean that every daily assignment or unit of work shall include all areas, but it does mean that in a given grade, a subject should be so organized as to include them. Later we shall see how this is provided for. It would be fair to say then that, in addition to this general definition of scope, the "areas-of-living" procedure attempts to guarantee a balanced curriculum in which there is a maximum of breadth and a minimum of overlapping.

A third justification of this basis of curriculum reorganization is that it provides the teacher who breaks with the subject-centered curriculum with a sense of security. It stimulates him to launch out on relatively uncharted seas, secure in the belief that if he steers his course with reference to the major areas of human activity, he will eventually arrive at his destination. In the subject-centered curriculum, he finds security in covering the prescribed ground. He now finds it by exploring all of the important areas of living. Even if he continues to teach subjects, he has a way of checking the completeness of his subject matter.

Certain basic assumptions concerning this program of curriculum development may be made at this point. First of all, there is the assumption that *the problems of the adult world provide the fundamental basis for the curriculum*. The job of the curriculum maker is to know what they are in any given time and locality, and then to find the aspects of these problems which are appropriate to any particular age or grade level. Through the solution of these problems, the child at his own level of development becomes oriented to the adult world, and achieves the attitudes, understandings, skills, and abilities which define good citizenship in the culture.

Another assumption is that, while the universal character of the major functions of living is stressed in most formulations, they derive their meaning and significance from the contem-

porary scene. "Getting a living," for example, is a wholly different problem in America at the present stage of technological development than it was one hundred years ago. Hence, the emphasis must be placed upon the peculiar and distinctive character of living at the present time in our democratic culture. The assumption, therefore, is that *the universal areas of living will be analyzed in terms of the crucial problems of contemporary adult life*. The extent to which such an analysis is made varies with the program, but without it, the "areas of living" concept becomes almost useless. (It will be shown later how this analysis functions in the curriculum reorganization program.)

DETERMINING SEQUENCE. Obviously, if we neglect the problem of sequence and think of the curriculum merely in terms of the several "areas of living," perhaps logically organized, we would not be far along the road of educational reform. We would merely have another set of "subjects." They would perhaps be more functional than traditional subjects but the principle of organization would be much the same. What is needed is a new concept of sequence, and this the curriculum maker seeks to provide by various means. The most common procedure is to establish a "center of interest" for each grade or age level. Sometimes two or more grades may be combined for this purpose, as we shall see. Since the Virginia Program set the stage for many schools that use the particular type of curriculum development under discussion, the centers of interest in that program are listed. While this discussion is concerned principally with the secondary level, the elementary level is included in order to make clear the general continuity from grade to grade.

- Grade I. Home and School Life.
- Grade II. Community Life.
- Grade III. Adaptation to Environmental Forces of Nature.
- Grade IV. Adaptation of Life to Advancing Physical Frontiers.
- Grade V. Effects of Inventions and Discoveries upon our Living.

- Grade VI. Effect of Machine Production upon our Living.
- Grade VII. Social Provisions for Cooperative Living.
- Grade VIII. Adaptation of our Living through Nature, Social and Mechanical Inventions, and Discoveries.
- Grade IX. Agrarianism and Industrialism, and their Effects upon our Living.
- Grade X. Effects of Changing Culture and Changing Social Institutions upon our Living.
- Grade XI. Effects of a Continuously Planning Social Order upon our Living.

The Santa Barbara sequence is as follows:

- Kindergarten and Grade I. Growth in effective living through self-adjustment *within the immediate environment*.
- Grade II. Growth in effective living through adjustment to our *community*.
- Grade III. Growth in effective living by further adjustment to the community through the development of insights into the manner in which the *natural and controlled environment* is contributing to life in our community.
- Grade IV. Growth in effective living by further adjustment to the community through the development of insights into the manner in which the present culture groups are adjusting to life in our community.
- Grade V. Growth in effective living through the development of insights into the manner in which present as compared with former culture-groups carry on the basic functions of human living in *Santa Barbara and California*.
- Grade VI. Growth in effective living through problem-centered experiences directed toward understanding how modern techniques are being utilized in carrying out the basic functions of human living in *the United States*.
- Grade VII. Growth in effective living through problem-centered experiences directed toward understanding the interdependence of individuals in our school, our community, the regions of our Nation, and in the countries of our American neighbors.
- Grade VIII. Growth in effective living through problem-centered experiences directed toward understanding how man's courage, knowledge, discoveries, and inventions have affected his way of living.
- Grade IX. Growth in effective living through problem-centered ex-

periences directed toward understanding and appreciating the individual's *privileges and responsibilities as an American citizen.*

Grade X. Growth in effective living through problem-centered experiences directed toward happy and effective *personal, spiritual, social, recreational, and vocational living in the home, school, and community.*

Grades XI and XII. Growth in effective living through problem-centered experiences directed toward achieving the highest possible quality of human experiences through *striving for social, political, and economic democracy in its local, state, and national setting, and for peace and cooperation on the international scene.*¹⁵

Marked similarities will be observed between the centers of interest chosen for emphasis in the Virginia Program, and the Santa Barbara curriculum discussed above. Both lists are somewhat similar also to the formulations worked out in other programs such as Mississippi and California.¹⁶

SOURCES OF CENTERS OF INTEREST. Theoretically, centers of interest are arrived at through an analysis of the needs, interests, and abilities of students at various age or grade levels. We have seen, however, that there is much confusion in the meaning of needs. Are the immediate felt needs of students to be analyzed, or the needs as seen by adults? Apparently both of these interpretations enter somewhat into the determination of centers of interest. The curriculum maker is committed to the principle that the student is to be oriented to the problems of adult living as classified in each area of human activity. It

¹⁵ *Experimental Curriculum in the Santa Barbara City Schools*. Bulletin No. 1, Revision No. 1. Santa Barbara, Santa Barbara City Schools, 1941, 22-24. (Italics in original.)

¹⁶ See O. I. Frederick and Lucile J. Farquar, "Arcas of Human Activity," *Journal of Educational Research*, XXX, 672-679 (May, 1937), and O. I. Frederick and L. P. Musslewhite, "Centers of Emphasis for Grades One Through Twelve," *Journal of Educational Research*, XXXII, 123-129 (October, 1938). Mississippi Program for the Improvement of Instruction. Bulletin Nos. 5 and 6. Jackson, State Department of Education, 1937-1939. Georgia Program for the Improvement of Instruction. Bulletin No. 2. Atlanta, State Department of Education, 1942. Helen Heffernan, "Second Report of the Committee on Scope and Sequence of Major Learnings in the Curriculum," *California Schools*, VIII, 216-230 (July, 1936).

follows then that curriculum materials must be found at each age or grade level that will contribute to such an orientation. Otherwise the whole basic structure of the proposed curriculum collapses. At this point the emphasis upon *ability* enters the picture. The proposed center of interest and curriculum materials related to it must be within the ability of the student. That is, he must be able to master them. Obviously he should also be interested in them if optimal learning is to be secured. The extent to which felt needs and interests are sacrificed depends upon how important the curriculum maker believes areas of human activity to be. Examination of curriculum materials from various schools using this plan reveals that the demand for understanding of the "forces" or problems which give meaning to the areas of human activity is a more significant factor in determining curriculum materials than present needs or interests. The centers of interest proposed by Virginia and Santa Barbara are not, in the opinion of the author, revealed by any thoroughgoing study of the needs and interests of children. For example, the Virginia curriculum proposes that "community life" be made the center of interest for the second grade. Common sense tells us that certain aspects of community life are of interest at every grade level, for certain stresses and strains that originate in the life of the community impinge upon the student at every stage of growth. What, then, is the justification of making it the center of interest for the second grade? The same situation exists with reference to every center of interest proposed. We are then forced to the conclusion that the sequence of learning experiences implied by these centers of interest is not to be taken too seriously. In general, the proposed sequences are based upon certain assumptions such as (1) learning should proceed from the simple to the complex, from the immediate to the remote, from the concrete to the abstract, on the ground that the learner becomes increasingly capable of dealing with abstract ideas as he matures physically, intellectually, and emotionally, (2) that learning should proceed toward a refinement of social ideals. We may grant all these assumptions, however, and still reject the conclusions that are reached

with reference to suitable centers of interest for each grade or age level.

Even though we may reject the psychological basis for these centers of interest, we must admit that they do give definiteness to the curriculum and facilitate the planning of the work of each grade so as to avoid overlapping and gaps. The establishment of a more or less fixed sequence also gives a sense of security to the teacher who is breaking away from logical organization of subjects as a basis for determining sequence. With all of the difficulties involved in the centers-of-interest technique, it is undoubtedly better than the traditional plan. In practice, the intelligent teacher will not be enslaved by the center of interest prescribed for his students, but will use it merely as a point of departure.

STEPS IN THE SOCIAL-FUNCTIONS PROCEDURE. The various steps in the development of a social-functions curriculum which have been discussed may be summarized as follows:

1. Formulate a philosophy of education, which should include an analysis of the various objectives which the school seeks to attain.
2. Decide upon the major areas of living, either by accepting a formulation worked out by others or as the result of research.
3. Discover the major problems, forces, or needs of society that belong to each area of living.
4. Make a study of the characteristics of adolescents at each level of development (or accept a formulation already made).
5. Upon the basis of (a) the objectives of education, (b) the areas of human activity, and (c) the characteristics of adolescents, decide upon appropriate centers of interest for each grade or age level.
6. Determine the type of curriculum organization.
7. Plan units of work related to the centers of interest and appropriate to the needs, interests, and abilities of the various groups, which are significant for attaining the objectives, and which orient the student in the major areas of human activity.
8. Set up a plan for evaluating the outcomes.

A MODIFICATION OF THE SOCIAL-FUNCTIONS PROCEDURE. A curriculum-making group may, of course, modify the above procedure in various ways. The Kansas Program¹⁷ was developed very much in accordance with the first five steps of the above outline. However, it does not provide specific centers of interest for each grade level. Instead it proposes "leads for units of work." This it does by discovering the "problems in each of these areas of human living that children at successive growth levels may meet and profitably become aware of . . . These questions are stated as children ask them. They offer opportunities to teachers for developing meaningful learning situations with children who plan to find the answers. Therefore, the questions are called leads to units of work. These leads to units of work and the problems to be solved in school community living constitute a suggested core curriculum."¹⁸ Since the core curriculum in the Kansas Program is conceived of as "unified studies" (health, science, and social science) the suggested problems are restricted to the appropriate content of the fields that are included. For example, in Grades seven to nine, under the fourth area of human living—*producing and distributing goods and services*, the following questions are:

1. How old is Kansas?
2. How do machines serve me and my family?
3. How can Kansas electrify her homes?
4. How does the windmill generate power?
5. How does money help us to trade?
6. Why does industry depend upon land?
7. Why are so many people out of work?
8. How is water power developed?
9. How shall I judge radio advertising of foods and clothes?
10. What industries do we have in our community?
11. Why do I need to work with my hands?
12. How are pottery, glass, furniture and rugs made?
13. What kinds of services are necessary for our community?
14. What effect do machines have upon services?
15. What makes a town grow?
16. How are cellophane, rayon and acetate made?¹⁹

¹⁷ *Op. cit.*

¹⁸ *Ibid.*, p. 16.

¹⁹ *Ibid.*, p. 19.

The teacher is given help in developing units of work on the basis of the "leads."²⁰ Some units are required, others are suggestive only. The sequence of units is determined by the interest and maturity of the student. "Sequence in the core program begins with the situation in each area of living that is within the interest of the child at that level. In every case it has its beginning in actual firsthand things and situations that he can feel, touch, see, and handle. Community resources are important here. This interest in the immediate can often be developed into interest in the remote as the individual matures and accumulates firsthand experiences. Therefore the questions which children want the answer to at any grade level concerning the experiences they are having constitute the leads to the consideration of that problem at any particular time."²¹

The teacher's task, then, is to develop the leads into units of work in such a way as to engage the student's interest. Through these units of work the student is to learn how to solve the persistent problems of living in each of the major areas and at the same time develop the characteristics essential to democratic living.

In the Kansas Plan, it will be noted that the suggested "leads" to units of work serve the same general purpose as the "centers of interest" in the plan previously discussed. In other words, it is the teacher's answer to the question: "If I am not to teach the material of the textbook, what am I to teach?" The "leads" in each area of living, the analysis of growth at each age level, the interests and abilities of the students, and the suggested units of work become substitutes for the textbook.

THE ORGANIZATION OF THE "SOCIAL-FUNCTIONS" CURRICULUM. As has been discussed, the procedure of developing the scope and sequence of the curriculum by means of analyses of the areas of living and the needs, abilities, and interests of youth have been designed to free the school from the formalism of the subject-centered curriculum. It is to be ex-

²⁰ The general plan of these units is discussed in the next chapter.

²¹ *Ibid.*, p. 23.

pected, then, that the curriculum would be organized so as to implement this idea. To this end, most of the schools using this procedure provide for some sort of a core curriculum. Two illustrations will suffice to indicate how this is done.²²

VIRGINIA PROGRAM. In the eighth grade, four out of a total of seven periods per day are allotted to the core. The remainder of the school day is given over to physical education, out-of-class activities, and electives. During the four periods of the core (time may be set aside for dealing with special phases of mathematics), learning activities include material from social studies, language, arts, science, and mathematics. In the ninth grade, core time is cut to three periods and provides for instruction in social studies, language arts, and science. (Note that mathematics is not included). The remainder of the school day is given over to physical education, out-of-class activities, and electives. Presumably the electives are taught as separate subjects, but in terms of the same general principles of scope and sequence that operate in the core.

KANSAS PLAN. In all grades (seven to fourteen), one half of the school day is devoted to the core program. The nature of this core is described in the bulletin ²³ as follows: "Solving problems that arise in the community living of the school as well as work on leads to the persistent environmental and social problems of the community. Leads are developed (1) to problems of health and science with their social implications, and (2) to problems of social science. A pupil group draws on all sources of information and suggestions from first and second-hand experiences that will help solve the problem or attain the purpose. In addition to science and social science problems, in grades 7-12 this core program includes the oral and written communication required of all pupils and much of the literature, and in grades 10-14 it may include all the skills in English required of all pupils."

²² See *Manual of Administration for High Schools of Virginia* (Tentative edition). Richmond, Virginia State Board of Education, 1937, pp. 65-68.

²³ Kansas. *op. cit.*, p. 14.

The other half of the school day comprises (1) work in the "skill aspects of reading, writing, oral and written communications, number manipulations and concepts that need special attention for mastery for effective use in units of work and in life outside the school," (2) recreational, aesthetic, and creative experiences, and (3) specialized courses in organized fields. In actual practice the elective program gradually increases from grade to grade, and the core time is reduced correspondingly.

It will be noted that both of the core-curriculum organizations described above break with logical organization of subjects. However, they do not break with subjects. They unify certain subjects in terms of broad problems. Usually social science is the center of this unification, with science and language playing significant roles. In general, these programs conform to the definition of the unified subject-centered core given in Chapter VI.

UTILIZING THE SOCIAL FUNCTIONS APPROACH IN THE IMPROVEMENT OF SUBJECTS. There is no reason why this approach needs to be confined to a core-type curriculum. The teacher of science may, for example, utilize the areas of living and centers of interest for enriching science experiences. The systematic application of the procedure would undoubtedly modify significantly both the scope and sequence of science subject matter. Were this to be done, the textbook could no longer be closely followed, for the problems developed would have to meet the criterion of student interests and at the same time bear a close relationship to the persistent problems in the various areas of living. In some schools, the scope and sequence chart, a schematic organization of the areas of living in a horizontal column, and the suggested emphases at each grade level in vertical columns, is given a conspicuous place in each classroom. The teacher uses it as a check of his program. He may thereby determine whether or not his work contributes significantly to the problems in the various areas of living, and is consistent with the emphases upon student interests, abilities, and problems provided for in the suggested sequence.

It should be pointed out, too, that with a liberal interpreta-

tion of this plan of curriculum reorganization, provision can be made for utilizing many first-hand experiences. The Kansas Plan particularly offers rich possibilities along this line.

In concluding the discussion of the social-functions approach, it may be stated that the plan provides a unique and significant way of resolving the age-old conflict between the adult-centered and the child-centered curriculum. The general scope is determined by the problems of adult living. The sequence is controlled by student needs, abilities, and interests. In this manner, both present living and preparation for future living are encompassed in the program. While emphases vary considerably among the various schools, it is probably fair to state that the adult-living aspect tends to dominate the curriculum, for it provides the basic framework for determining suitable learning activities.

THE ADOLESCENT-NEEDS APPROACH TO CURRICULUM REORGANIZATION

As a reaction against the adult-centered curriculum, a number of proposals to base the curriculum upon adolescent needs have been made in recent years.²⁴ The proponents of this concept hold that what is wrong with secondary education is that the curriculum has been dominated by the demands of the adult world. The remedy is to be found in a reversal of the whole procedure of curriculum making. The adolescent must be studied, his needs determined, and a curriculum designed to meet his needs must be provided. Like many other terms in educational literature, the needs concept is a vague one. It is used by people in many different ways. Often in the course of a discussion, it is used by the same writer in different ways. This results in confusion. Many of the arguments for and against basing a curriculum on adolescent needs are mere verbal differences that arise because the participants have differing concep-

²⁴ At the beginning of World War II, a number of schools, under the impetus of the Eight-Year Study, were experimenting with this new concept. In the opinion of the author, this trend was accentuated by the war, and will be resumed in the postwar period which lies immediately ahead.

tions of the meaning of "meeting the needs of students." At the risk of adding further to the confusion an attempt will now be made to discuss and perhaps reconcile the differing conceptions, and to explore the possibilities of utilizing the needs approach in curriculum development.

CONFLICTING CONCEPTS OF NEEDS. Perhaps the most common interpretation of needs is that they are drives, tensions, biological urges in the individual that determine action. Some of the tensions or urges are vague and poorly defined by the individual, others are clear-cut and definite, dominated by a goal or purpose. The need for food is an example of a basic elemental need. A dominating purpose to become a lawyer is a more complex and comprehensive need, but both are characterized by a biological tension or urge. Between the indefinite restlessness that may characterize at first the need for food, and the organized feeling of need to become a lawyer, is a complete range of drives that often are spoken of as problems, interests, whims, wishes, desires, longings, or purposes. Perhaps the term, *psychobiological*²⁵ need, best characterizes this concept of needs. Obviously they are of an infinite number, and are peculiar to each individual, shifting continuously as the individual develops. The so-called child-centered schools lean heavily upon this interpretation.

In contrast to this psychobiological concept, many people speak of the needs of adolescents in terms of his deficiencies or "lacks" as seen by adults. Adolescence is, as has been pointed out, an "in-between" period. Growing up simply means moving from the immature world of the child to the mature world of the adult. What sort of an adult should the adolescent become? The answer is to be found in the adult's conception of what he believes a desirable adult world to be. It may be one dominated by the academic tradition, in which case the adult will claim that Johnny needs to know Shakespeare, to be familiar with the

²⁵ See Donald C. Doane, *The Needs of Youth*, Teachers College, Columbia University, Contribution to Education No. 848. New York, Bureau of Publications, Teachers College, Columbia University, 1942, p. 4.

Classical music, or to be able to read Plato in the original. Or if the adult happens to be primarily interested in refining the concept of democratic living, then he will proclaim that Johnny needs to be tolerant, to be socially sensitive, to use the method of intelligence, and to learn how to cooperate for common ends. If the adult is primarily concerned with the practical world, he will insist that Johnny needs to learn a trade, to be able to repair a short circuit in the lighting system of the home, or to select becoming clothes. Needs of this sort are called *predicated needs* by Doane.²⁶ For our present purpose we may think of this concept of needs as embracing the requirements, demands, or standards of society. Thought of in terms of the adolescent, they are translated into "lacks" or "shortcomings" that ought to be eliminated if the adolescent is to become the sort of adult that is held to be desirable. Needs, defined in this manner, obviously have no necessary connection with what is *felt* by the adolescent at any given time. Needs of this sort are discovered by an analysis of society, not by an analysis of adolescent behavior. This interpretation is congenial to the social functions procedure in curriculum reorganization.

It is easy to see that these two concepts of needs conflict insofar as the high school curriculum is concerned. If we accept the first one, we study the adolescent by various means²⁷ to find out his expressed wishes, problems, and interests. If we accept the second interpretation, we study the social order to determine its ideals, values, shortcomings, and the like. And then we utilize our knowledge of the adolescent to motivate him to learn the sort of behavior that is revealed as necessary in the kind of world in which he is growing up, or the kind of world he wants to build. Obviously, when we are arguing about needs, we had better be fairly certain as to whether we are using the term to refer to biological tensions—or social demands or requirements.

But the resolution of the difficulty is not a simple matter of accepting one or the other as the basis of curriculum reorgani-

²⁶ Loc. cit., Doane distinguishes between "predicated needs" and needs as "shortcomings of society." To the writer such a distinction serves no useful purpose.

²⁷ See Chapter III for an analysis of the techniques that are employed.

zation. Acceptance of the first leads to all the abuses and excesses of the child-centered curriculum. To accept the second opens the door to the inclusion of all sorts of traditional materials that in the past have kept the secondary school from becoming a vital and significant institution.

What is the way out of the dilemma? One way, as we have seen, is to accept *both* interpretations and introduce courses to implement each of them. Thus, we might have courses in ancient history, pre-flight aeronautics, electrical repairing, and problems of democracy to meet social demands or requirements, and courses in personal regimen, psychology, or sex education to meet the psychobiological needs. It is obvious that such a program presents an impossible dualism that effectively prevents unification in the school.

RECONCILING THE CONFLICT. The Commission on the Secondary School Curriculum ²⁸ has proposed a solution of the problem by a redefinition of the meaning of needs, and the development of a program of curriculum reorganization based upon the new concept. Since this plan is the result of an extensive study over a period of several years, it will be presented in some detail.

Needs are held to be personal-social in character. A need always has two inseparable and interrelated aspects. The first aspect is a biological or somatic tension. It refers to some want,

²⁸ This study began in 1932 under the auspices of the Progressive Education Association. It carried on its work through a commission under the direction of V. T. Thayer. The Commission worked through two interrelated activities, a study of adolescents, and a study of the curriculum by educators, psychologists, and subject-matter specialists. The studies of the Commission have been published in a series of volumes. Those pertaining to the curriculum, published by the D. Appleton-Century Company, Inc., are as follows: Lawrence Conrad (for the Creative Writing Committee) *Teaching Creative Writing* (1937). Committee on the Function of Science in General Education, *Science in General Education* (1938). Committee on the Function of Art in General Education, *The Visual Arts in General Education* (1940). Committee on the Function of English in General Education, *Language in General Education* (1940). Committee on the Function of Mathematics in General Education, *Mathematics in General Education* (1940). Committee on the Function of Social Science in General Education, *Social Science in General Education* (1940). Elbert Lenrow (for the Committee on the Teaching of English in General Education) *Prose Fiction in General Education* (1940).

a desire that the individual seeks to satisfy, some problem that he wants to solve; some interest that he wants to develop or maintain. But this is only half of the story. Needs do not exist "under the skin of the individual" in isolation from the physical and social environment. They are in continuous interaction with it. Therefore they cannot be adequately described or defined without taking into account the environmental (social) aspect.

To speak of a need without including both its personal and social aspects is to leave out an indispensable element. Merely to say that Johnny wants something or that teacher X believes John needs a particular piece of knowledge, is to leave out the element of interaction between the two necessary components.

Now when the term *need* is used in this manner, it is evident that in any need as it exists at any given moment the two aspects will be present in varying degrees. Indeed, the emphasis shifts back and forth from one aspect to the other. Some needs, such as the "need for self-assurance," are more personal in character, whereas others such as the "need to participate with others in social-civic life" show more obviously their involvement in the social scene. But in the case of both of these illustrations, the two aspects are present. Self-assurance cannot be attained except with reference to situations involving the environment, typically also, involving other persons; if it were possible for a person to exist in a vacuum, the problem of self-assurance would never exist for him; on the other hand there would be no participation in social life except because of the needs of individuals. In the first illustration the teacher may be chiefly concerned with establishing fruitful relationships between the individual and environment and directing the "need for self-assurance" into socially desirable channels. In the second illustration, the teacher may be primarily concerned with discovering the personal, individual tension which calls for participation with others and with ways of directing it profitably.²⁰

²⁰ Committee on the Function of Science in General Education, *op.cit.*, p. 26. The above interpretation of "social" seems to be slightly at variance with the interpretation of the Commission as stated in *Reorganizing Secondary Education*. In that volume "needs as lacks" seem to be identified as the social aspect. A "lack" is defined as the difference "between the personality of the adolescent as it is found and the kind of personality that this school would have him develop." (p.35) As used in the above context, the social aspects of a need simply refers to the surrounding culture which presses in upon the adolescent; its stresses and strains as they affect him, the demands of the environment. The general statement of position is similar in both volumes. *Science in General Education* is used as the basis of the interpretation because (1) the treatment is

If we accept this interpretation of needs, then a study of the adolescent in his environment⁸⁰ will reveal not only his wishes, desires, immediate problems, interests, but also the demands, standards, requirements of the culture that affect him. Out of such a study would arise the identification of basic personal-social needs of the adolescent.

CLASSIFYING THE NEEDS OF ADOLESCENTS. The Commission found it helpful to think of the needs of adolescents in terms of their involvements in four basic interrelated aspects of living. It makes no claim of finality for this classification. Other groups, approaching the same problem, would probably utilize different categories. However, after experimentation with several types of organization, the Commission decided that the aspects-of-living concept best expressed the "idea of personal-social relationships, and continuous interaction between the individual and the environment." The first category, *Personal Living* concerns the development of the individual as a person. As he grows in interaction with the environment, the adolescent is held to have the following needs: (1) for personal health, (2) for self-assurance, (3) for a satisfying world picture and a workable philosophy of life, (4) for a range of personal interests, and for aesthetic satisfactions. The second category, *Immediate Personal-Social Relationships*, includes the adolescent's relationships with persons and groups in his immediate environment, his parents, schoolmates, friends, and brothers and sisters. These relationships, at a time when he is gradually emancipating himself from home and family ties, take on peculiar significance for they require significant adjustments. The simpler, and (2) it was published before *Reorganizing Secondary Education* and was utilized by the schools of the Eight-Year Study as a basis for curriculum planning, the results of which are used in this volume as illustrations of the proposed technique.

⁸⁰ The position of the Commission in defining needs so as to include both aspects has been criticized by Doane, *op cit.*, p. 48. He claims that it is not possible to interpret all needs as involving both the psychobiological, and the predicted (social demands) aspect. He accuses the Commission of incorrectly assuming the biological nature of many of the needs which it sets forth. He sees a danger in this procedure in that by further rationalization "virtually any item of subject matter could be presented as a self-motivating basis for curriculum construction."

Commission enumerates two basic needs in this area: (1) the need for increasingly mature relationships in home and family life, and (2) the need for successful and increasingly mature relationships with agemates of both sexes. The third category, *Social-Civic Relationships* is really an extension of the second one, and includes the adolescent's relationships with wider social groups such as school clubs, the church, the local community, and government. Obviously, this area involves more generalization and conceptualization than the former and the adolescent's relationships involve him in such intricate problems as housing, recreation, crime, government, and the like. His needs in this area are two: (1) the need for responsible participation in socially significant activities, and (2) the need for social recognition. The fourth category is *Economic Relationships*. This category is well described by the needs that are listed. They are: (1) the need for emotional assurance of progress toward adult status, (2) the need for guidance in choosing an occupation and for vocational preparation, (3) the need for wise selection and use of goods and services, and (4) the need for effective action in solving basic economic problems.⁸¹

The Science Committee states that this list of needs is suggestive only and is not to be accepted as fixed and final. Obviously each need listed could be broken down into scores of more specific ones or they could be combined into two or three needs basic to all living.⁸² Undoubtedly they would need further analy-

⁸¹ The reader who wishes to make a detailed study of the concept should read carefully the various publications of the Commission. For example, *Social Science in General Education* utilizes the identical categories for the purpose of determining the contributions of social science as general education, and in *Reorganizing Secondary Education*, the Commission treats in great detail the characteristics of the adolescent in these four aspects of living. For the more technical psychological aspects, the reader will do well to examine: Caroline Zachry and Margaret Lighty, *Emotion and Conduct in Adolescence*. New York, D. Appleton-Century Company, Inc., 1940, and Peter Blos, *The Adolescent Personality*. New York, D. Appleton-Century Company, Inc., 1940.

⁸² While this formulation was being developed, the Commission on Human Relations of the Progressive Education Ass'n was studying the problem of "human needs" from a slightly different angle. See Walter C. Langer, *Psychology and Human Living*. New York, D. Appleton-Century Company, Inc., 1943. He reports sixteen basic human needs in three categories: Physical, Social, and Egoistic.

sis in terms of the peculiar conditions existing in a particular school that sought to utilize the needs concept in curriculum reorganization. The character of the analysis is to be determined, in any case, by the uses to which the results are to be put. The Science Committee found the above analysis fairly satisfactory for its purpose—the determination of the place of science in the general education of the adolescent.

THE DEMOCRATIC FRAME OF REFERENCE. It could probably be established that all of the needs listed above would be found to exist in the adolescent population of almost any culture—democratic or totalitarian. But the way any need would be met would depend upon the nature of the society and the values or ideals which that society held to be most significant. In other words, needs must be met in such a manner as to develop the kind of citizen that is held to be desirable in our democratic culture. Basic then to the position of the Committee is its statement of aims. It is as follows, “the purpose of general education is to meet the needs of individuals in the basic aspects of living in such way as to promote the fullest possible realization of personal potentialities and the most effective participation in a democratic society.”⁸³

The Committee interprets democratic living⁸⁴ as involving three distinctive ideals, (1) optimum development of personality, (2) reciprocal individual and group responsibility for promoting common concerns, and (3) the free play of intelligence. Based upon these three major ideals are the following inter-related characteristics of personality essential to democratic living: (1) social sensitivity, (2) tolerance, (3) cooperativeness, (4) disposition and ability to use reflective thinking in the solution of problems, (5) creativeness, (6) self-direction, and (7) aesthetic appreciation.

⁸³ Committee on the Function of Science in General Education, op. cit., p. 23.

⁸⁴ See *Ibid.*, Chapter II, for a complete analysis of the concept of democratic living outlined above. Essentially the same treatment is to be found also in *Reorganizing Secondary Education*, Chapter III.

REORGANIZING THE CURRICULUM. Having identified the major needs of the adolescent in the basic aspects of living, and defined desirable directions of growth in meeting these needs, the Committee then proceeds to examine the area of science in order to determine its contribution to the meeting of needs. This it does mainly through a statement (1) of the major generalizations and (2) the inquiries in the science area that are suggestive for the meeting of needs. The generalizations are verbal statements that are regarded as having potentialities for the development of understandings on the part of students that result in significant changes in behavior. The term, *inquiry* denotes "problems or questions for which no single solution or answer acceptable under all conditions can be given."⁸⁵ To summarize, the curriculum in science consists of learning activities which meet the following criteria:

1. How does it help the adolescent to meet his personal-social needs in the four categories proposed by the committee?
2. How does it tend to further realization of the ideals of the democratic society?
3. How does it help the adolescent to develop the characteristics of personality essential to effective living in such a democratic society?⁸⁶

Each subject-field committee of the Commission went about its task in terms of the same general orientation, but with varying proposals for determining appropriate content and organizing it into learning activities. In no case was a curriculum as such developed. The various committees conceived their function to be principally the offering of suggestions to schools and teachers for curriculum development. Each report is, in a sense, a reservoir upon which the teacher may draw for long-range and day-to-day curriculum planning. Out of the work of the various committees, however, a program of curriculum development emerges. The basic steps in such a program might be as follows:

⁸⁵ *Ibid.*, p. 62.

⁸⁶ *Ibid.*, p. 57.

1. The development of a philosophy of education culminating in a statement of basic purposes of secondary education.
2. An analysis of the basic personal-social needs of adolescents at various levels of growth and development.
3. The determination of suitable learning activities in terms of the criteria proposed above.

The Commission carried on its work through committees composed largely of subject-matter specialists. These committees worked in terms of broad fields such as science, mathematics, social science, and the like. Behind this organization is the implied assumption that the Commission favored the broad-fields type of organization rather than some form of core curriculum or narrow specialized fields. In other words, the Commission assumed the desirability of subject fields before it had actually discovered the needs of adolescents and addressed itself to the problem of how best these needs could be met. As a matter of fact, the Commission's general volume, *Reorganizing Secondary Education*⁸⁷ which appeared after most of the reports of individual committees had been published makes a strong case for the retention of subject-matter fields. However, it insists that the character of the organization must be determined by the local situation in which the curriculum is being developed. Notwithstanding the Commission's predisposition toward the subject-centered curriculum, significant it is that the needs concept as developed by the Commission is probably exerting more influence upon the reorganization of core curriculums than in the direction favored by the Commission. In other words, studies of needs tend to suggest more and more the inappropriateness of subject fields for meeting many of them.

ILLUSTRATIONS OF THE NEEDS CONCEPT IN CURRICULUM DEVELOPMENT. Since we are concerned mainly in this chapter with a discussion of procedure in curriculum making, it is perhaps inappropriate to include illustrations at

⁸⁷ For a complete exposition of the Commission's view on curriculum organization see Thayer, Zachry, and Kotinsky, *op. cit.*, 428-448.

this point. A group of schools in the Eight-Year Study, of which Denver and Tulsa are conspicuous examples, were greatly influenced by the needs concept. This influence is clearly shown by the outline of core curriculums presented in Chapter VI.⁸⁸

THE ADEQUACY OF THE NEEDS CONCEPT IN CURRICULUM DEVELOPMENT.

Can a satisfactory curriculum be built upon the basis of adolescent needs? The answer to this question depends upon the concept of needs which is accepted by the curriculum-making group. If needs are interpreted solely as the drives (psychobiological) of adolescents that may be discovered by a study of adolescent behavior, either through case studies, questionnaires, inventories, or other means, the answer is likely to be in the negative, for such studies will not reveal the more fundamental and deep-seated drives that determine conduct. These can only be ascertained by studies that involve the total surrounding situation which involves not only the changing personality of the adolescent but also his environment, in the immediate and wider sense. It must be remembered that the adolescent is growing up in a culture which makes demands upon him. To ignore this basic fact is to fail to understand the forces that are operating upon him. Many of these forces he does not comprehend or understand. Consequently he ignores them or misinterprets their meaning. It must be remembered, too, that he is growing up in a society that has come to believe in certain ideals or values—even though their application to actual living may be confused. If all of these factors are taken into account in the interpretation of the meaning of needs, then the answer is obviously in the affirmative. But can the needs concept be interpreted broadly enough to include all of these factors, and still retain some measure of definiteness and clarity of meaning? Further experimentation and philosophical clarification are needed before we have an unequivocal answer to this question. At the present time, perhaps the best we can say is that the movement to study the

⁸⁸ For other illustrations, see H. H. Giles, S. P. McCutchen, and A. N. Zechiel, *op. cit.*, Chapter II.

adolescent as the basis for curriculum reorganization is a wholesome one. Intelligently interpreted, it is bound to influence all of the other procedures in curriculum development.

PROCEDURES IN CURRICULUM DEVELOPMENT AND THE INDIVIDUAL TEACHER

In general, procedures that are proposed for curriculum development presuppose that an entire school, or system of schools, is embarked upon a curriculum revision program. Very frequently this situation does not prevail. What then of the individual teacher who wishes to improve his work? What can he learn from the studies of curriculum procedures? Within certain limits fixed by the organization of the curriculum of the school, he may utilize either the social-functions approach or the adolescent-needs approach to improve his teaching. He may, for example, select and organize the learning activities in his field in such a way as to touch upon the crucial problems in all of the aspects of living. This would serve to broaden his work and to bring it more directly into relationship with present-day living. At the same time, he may study his students in the light of general trends in adolescent development, discover their needs, interests and problems, and reorganize his learning activities in such a way as to help the adolescent to meet his problems, satisfy his needs, and extend and enrich his interests. And he may well find that the two procedures supplement each other.

SUMMARY

Five procedures in curriculum reorganization have been discussed, two of which are commanding the attention of educators. The first and best known is the "social-functions" procedure which is based upon the problems of adult living in our culture. This procedure dominated curriculum reorganization between 1930 and 1940. The second is the "adolescent-needs" procedure which takes as its point of departure the needs, interests, and problems of the adolescent in our culture. This procedure only recently is beginning to be utilized. Interpreted strictly these two procedures are antithetical. However, if the learning activities that are selected in the social-

functions curriculum deal with the present problems of the adolescent, and if those that are selected in the adolescent-needs curriculum are pointed toward adult living, the two procedures tend to re-enforce each other. They may even result in the same kind of curriculum.

Both procedures seem to point rather definitely, though not inevitably, in the direction of a core curriculum in which the common problems, interests, and needs are dealt with irrespective of subject lines. On the other hand, either procedure might possibly eventuate in a subject curriculum. Much depends upon the interpretation that is placed upon the term, "needs."

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PART III

THE PRE-PLANNING OF LEARNING ACTIVITIES

UNIT TEACHING: ITS EVOLUTION AND PRESENT TRENDS

A SURVEY OF PAST AND PRESENT PRACTICES IN CURRICULUM reorganization was made in the previous four chapters. It was shown that there is a marked reaction against the traditional fixed subject-centered curriculum, and toward a functional approach that takes into account the need for an adequate philosophy of education to provide a sense of direction, a comprehensive study of student problems, interests, and needs, and thorough understanding of changing demands, and requirements of our society. It is held that the general pattern of development of a particular school must take its form from the character of the community, the particular qualifications and competencies of the teaching staff, and the nature of the student body. This general pattern of curriculum development at best provides only the guide lines for the actual work in classroom, shop, and studio. The specific organization of instructional activities must of necessity be left to the individual teachers who work with groups of students. Any curriculum development plan that fails to trust the intelligence of its teachers is bound to be external and ineffective for students, and destructive of the initiative of the teacher. Consequently, attention needs to be given to the most effective ways of helping the teacher to plan learning activities. With these things in mind, we now turn our attention to the problem of the organization of curricular materials for classroom use.

REACTIONS AGAINST THE DAILY
RECITATION PROCEDURE

It has long been recognized that the daily assignment-recitation procedure that has characterized the traditional school is grossly inadequate to achieve democratic values, and to provide for the optimal development of students. Many of the criticisms of this procedure have been discussed in previous chapters. They need only to be summarized at this point.

The daily recitation procedure (1) is inconsistent with the new psychology of learning, (2) does not provide adequately for individual differences, (3) is destructive of student and teacher initiative, (4) is inadequate for purposes of achieving democratic values, (5) does not lend itself to cooperative teaching, (6) discourages the unifying of subject fields or learning experiences, (7) perpetuates the ground-to-be-covered conception of education, and (8) lends support to the slavish use of the textbook.

As a matter of fact, the procedure has but one thing to recommend it. It provides for a clearly understood and easily administered educational program. Since it has been in use for so long, it has the support of tradition and hence is difficult to change. It therefore continues to be the most widely used procedure in the American high school.

INDIVIDUALIZED INSTRUCTION. Some of the earliest attempts to break the lock step in education centered around plans for individualizing instruction.

In 1888 Preston Search,¹ then Superintendent of Schools

¹ Those who are interested in the historical development of individualized instruction should consult the following references: Preston Search, *An Ideal School*. New York, D. Appleton-Century Company, Inc., 1901. ———, "Individualism in Mass Education," *National Education Association, Addresses and Proceedings*, 1893, 398-411. ———, "Individual Teaching: The Pueblo Plan," *Educational Review*, VII, 154-170 (February, 1894). H. H. Ryan and P. Crecilius, *Twenty-Fourth Yearbook*. National Society for the Study of Education, 1925, Part II, 19-30. V. T. Thayer, *The Passing of the Recitation*. Boston, D. C. Heath and Company, 1928, pp. 161-248. H. B. Albery and V. T. Thayer, *Supervision in the Secondary School*. Boston, D. C. Heath and Company, 1931, Chapter XIV.

in Pueblo, Colorado, abolished the recitation system and permitted students to advance at their individual rates of speed. The plans for accomplishing this revolutionary change were not systematically worked out and as a result the ideas advanced by Search did not spread. However, he did succeed in calling attention to some of the more flagrant evils of the daily recitation procedure.

Frederic Burk seems to have been the first educator to systematize a plan for individualizing instruction. The scheme was worked out in 1913 in the training school of the San Francisco State College. The staff developed self-instructional materials which were placed in the hands of the students. Group assignments and recitations were entirely abolished and each student advanced through the written assignments at his own rate of speed. The teacher checked his progress and helped him with his difficulties. When the student finished a particular assignment, he was tested upon it and was given a new one. The plan seems to have met with considerable success. However, it remained for two educators, who came under Burk's influence, to refine and popularize the basic ideas of the individualized technique. Helen Parkhurst developed and installed the Dalton Plan in the public schools of Dalton, Massachusetts, and later in the Dalton School of New York City, where certain of its original features are still in use. Carleton Washburne applied the technique with many modifications to the elementary schools of Winnetka, Illinois, where it still functions. These two pioneer developments have had great influence in breaking the lock step in education, though they should not be regarded strictly as unit plans. Since nearly all present-day proposals for individualizing instruction have something in common with them, brief analyses of the two plans are made.

THE DALTON PLAN. The central feature of the Dalton Plan,² as it was originally worked out, was the "job book" which

² Readers who wish to study the plan in detail should consult the following sources: *Adapting the Schools to Individual Difference*. The Twenty-Fourth Yearbook. National Society for the Study of Education. Bloomington, Public School Publishing Company, 1925, Part II, 83-94. Helen Parkhurst, *Education*

made it possible for each student to pursue his work without much reference to the progress of other students in the same group. The job book consisted of carefully prepared written assignments in each subject or field covering a period of one school month (twenty days). Generally speaking, the amount of work to be accomplished in one day in a given subject was designated as a unit. If the student pursued five subjects, he would then "contract" to do one hundred units in a month. Once having accepted the "contract," the student budgeted his own time (under the guidance of the teacher, of course) and planned his own program. During the long "laboratory period" he might elect to spend all his time for a number of days in one laboratory, for example, mathematics, thus completing the entire month's work in that field. If he followed this plan, he would in turn tackle the job (twenty units) in each of the other four fields. He might elect to divide his time so as to accomplish a unit in each of his five fields each day. Naturally he might combine the two plans in a variety of ways. As a check upon extended concentration on one field to the neglect of others, he was required to finish all of the units of his month's contract before he could secure the job book for the next month.

The school day in a typical Dalton School was divided into three periods. The first was relatively short and was designated as the *organization* or *planning* period during which each student under the direction of his homeroom teacher planned his program for the day. The second period, usually called the laboratory period, occupied a large part of the day. It was during this period that the student carried out his assignment in the various laboratories. The school consisted of as many laboratories as there were subjects, and each one had a specialist in that field in charge. While the assignments were so written that the student could proceed without much help, the laboratory teacher rendered assistance when needed and checked the student's work when he

on the Dalton Plan. New York, E. P. Dutton and Company, 1922. Lucy Wilson et al., *Educating for Responsibility*. New York, The Macmillan Company, 1926. Roy O. Billett, *Provisions for Individual Differences, Marking, and Promotion*. Bulletin, 1932, No. 17, Monograph No. 13. Washington, U. S. Government Printing Office, 1933, 266-288.

had finished. The final part of the school day was known as the conference period, which was relatively short and was usually given over to group discussion. This was not a typical "recitation" however, since the students who made up the group might be at various stages of the assignment. Theoretically there would be a spread of several weeks work in any given group of students.

The Dalton Plan had much to commend it. First, it provided a means of escape from the evils of the daily assignment-recitation system. Second, it provided adequately for individual differences in rates of learning. Third, it cultivated student initiative and responsibility by granting him freedom to plan and carry out his program. These are all significant aspects of a modern program of unit teaching.

There were, however, certain weaknesses that must be taken into account. First, the necessity for preparing written assignments long in advance tended to "freeze" the curriculum. Second, there was a strong inclination for all students to pursue the same curriculum, thus failing to provide for individual differences in interests and needs. Third, the "unit" was merely a device for determining the amount of time designated for the accomplishment of a given block of work. In no sense was it a comprehensive learning unit. Fourth, the written assignment failed to provide adequately for student-teacher planning. Fifth, there was inadequate provision for group work during which free discussion of problems by students and teachers could take place. Even with these faults, it was far in advance of the methods current at the time it was introduced. And it is still far in advance of those schools which cling to the daily recitation procedure.

THE WINNETKA PLAN. The basic feature of the Winnetka Plan ⁸ is the procedure for dealing with the essential learnings that are held to be common to all students irrespective of interests, abilities, or needs. It is held that there are two dis-

⁸ See *Adapting the Schools to Individual Differences*. The Twenty-Fourth Yearbook of the National Society for the Study of Education. Bloomington, Public School Publishing Company, 1925, Part II, 77-83.

tinctly different types of curriculum material. First, there are the "common essentials" (knowledge and skills) needed by everyone, and second, the more specialized activities of a creative sort (dramatics, art, literature, etc.) that are provided in order to meet the needs, interests, and special abilities of individuals or special groups of students.⁴

The justification for separating the curriculum into two different compartments is presented by Washburne:

Every child needs to know certain elements of arithmetic, needs to be able to read with a certain speed and comprehension, needs to spell certain common words, needs to know something about those persons, places and events to which reference is constantly made. Since every child needs these things, and since every child differs from others in his ability to grasp them, the time and amount of practice to fit each child's needs must be varied. Under the old regime, in the effort to give different children the same subject matter in the same length of time, the quality of the children's work, the degree of their mastery, varied from poor to excellent as attested by their report cards. But under the Winnetka technique of individual education, instead of quality varying, time varies: a child may take as much time as he needs to master a unit of work, but master it he must. The common essentials by definition, are those knowledges and skills needed by everyone; to allow many children, therefore, to pass through school with a hazy and inadequate grasp of them, as one must under the class lockstep scheme, is to fail in one of the functions of the school.⁵

Washburne and his staff, acting upon the above principles, prepared self-instructional and self-testing materials covering the common essentials. These "goal books" are placed in the hands of students who proceed at their own rates to master the materials. The results of the tests and scales at the end of each "unit" tell him when he is ready for the next goal book. If, at the end of the year, he has not mastered the work prescribed for that year, he starts the next year where he left off the previous one. If, on the other hand, he finished the year's work in April, he

⁴ See Roy O. Billett, *op. cit.*, 289-309 for an analysis of the Winnetka Plan.

⁵ *Adapting the School to Individual Differences*, *op. cit.*, p. 79.

begins the next year's work immediately. Thus, a student never skips or fails. He masters whatever he undertakes.

The "creative" division of the curriculum is not unlike the group activities that characterize other good schools. This aspect of the curriculum includes group projects in the fine and practical arts, journalism, dramatics, literature, and the like. There are no set common goals for everyone, no ground to be covered, and no particular facts or skills to be acquired. The students simply carry on the kind of work best adapted to their needs and abilities.

Like the Dalton Plan, this individualized technique has made significant contributions to education. Among them are the following: First, it has called attention in a striking manner to the enormous range of differences among students—particularly in rates of learning. Second, it has tended to discredit the daily assignment-recitation procedure. Third, it has shown that teachers may play a significant role in curriculum making. Fourth, it has refined the techniques of evaluation, particularly in the self-appraisal field.

Weaknesses of the technique also appear. First, the separation of "common essentials" from creative activities is artificial in that the acquisition of knowledge and skills, ideals, attitudes, and appreciation is a unitary process. Second, it places an undue emphasis upon the individualized aspects of education.

Both the Dalton and Winnetka Plans have been widely publicized and with many modifications have found their way into a number of schools not only of the United States but of foreign countries as well. They reached the height of their popularity in the decade of 1920-1930 and since then have been on the decline. At the period of greatest popularity, however, they were adopted in considerably less than ten per cent of the schools. But even in schools which did not utilize the plans as such, they probably exerted considerable influence in bringing about more effective procedures for dealing with individual differences. They were the forerunners of present-day unit teaching.

THE WORKBOOK. In spite of the fact that the Dalton and Winnetka Plans have been adopted in many schools both in this country and other parts of the world, neither of these plans has gained widespread acceptance. The reasons are not hard to discover. Significant weaknesses have already been pointed out, but it is doubtful that these weaknesses have been the principal cause of the failure of these plans to gain in popularity. More significant is the fact that the adoption of either one of them calls for a sharp break with the traditional plan of curriculum organization. The subject curriculum with its emphasis upon textbooks and daily assignments has been too firmly entrenched, and instructional materials have been too difficult to work out.

By some administrators and teachers, workbooks are seen as the answer to the difficult problem of individualizing instruction. They may be used without disturbing the status quo, consequently the idea has been seized upon by textbook writers, publishers, and curriculum makers as a way of modernizing the daily ground-to-be-covered procedure. Workbooks are, generally speaking, made up of exercises, outlines, and self-testing devices. Usually they accompany a given textbook. Frequently certain days of the week are allocated for "recitations" from the textbooks, others for using the workbook. This provides a certain flexibility, if the teacher does not insist that all students cover the same ground at the same time, a practice which is by no means unusual. It also provides relief from the monotony of the recitation system.

The workbook idea, in some form or other, has found its way into nearly all schools. A number of years ago a study by Goodrich⁶ indicated that workbooks were being used in nine tenths of the schools which he studied. He reported that one series of workbooks was used by four thousand cities.⁷ Since this study was made, the use of these devices has become even more widespread.

⁶T. U. Goodrich, "Is the Workbook a Necessity or a Luxury?" *School Executives Magazine*, L, 359-361 (April, 1931).

⁷For a complete analysis of different types of workbooks, see J. G. Umstattd, *Secondary School Teaching* (Revised). New York, Ginn and Company, 1944, pp. 182-201.

Obviously, it is not possible to give any very adequate general evaluation of the workbook idea, since much depends upon the character of the workbook under consideration and the manner in which it is used by the teacher. However, their use may have the following weaknesses:

1. They tend to "freeze" the curriculum and to stereotype instructional procedures.
2. They discourage teacher-student planning, since the workbook usually gives specific instruction as to procedure.
3. When used in connection with the textbook, they tend to compartmentalize certain aspects of learning, and to duplicate others.
4. They tend to become a poor substitute for thinking on the part of both teachers and students.
5. They are usually developed out of relationship to the purposes which are held by the teacher, in which case they are apt to be external to the learning activities which are planned by the teacher.
6. They fail to meet the need for recognizing the wide variety of individual differences among students.

On the positive side, it should be pointed out that they save teacher time, and to some extent provide for certain individual differences, particularly in rates of learning. At best, however, they are a poor substitute for a thoroughgoing reorganization of the curriculum based upon learning as a unitary process. As teachers become emancipated from the slavery of the fixed curriculum with its almost complete adherence to text books, the workbook will probably decline in popularity. It should be regarded as a makeshift in a period of transition from traditional to modern educational procedures.

HOMOGENEOUS GROUPING. While there is little or no connection between the various plans for homogeneous grouping, the various schemes for individualizing instruction, and unit planning, yet they do have one point in common in that they

are all directed toward meeting individual differences in abilities and rates of learning. Since a number of unit plans have drawn heavily upon the ideas back of homogeneous grouping, the plan will therefore be discussed briefly at this point.⁸

Homogeneous grouping retains the traditional class organization but seeks to reduce the range of individual differences in a given class by grouping those students of similar ability together. Various plans for affecting this grouping are in use, the most common of which is the so-called intelligence test. The assumption is made that those of similar intelligence, as measured by tests, should be grouped together. In practice, it has been discovered that there are many other factors that determine success, and that as a consequence the intelligence test is a relatively ineffective instrument for grouping. In order to secure greater homogeneity, elaborate criteria have been worked out which include such factors as health, grades in previous work, intelligence, social maturity, tests in reading comprehension, reading rate, arithmetic fundamentals, and teacher judgments. Undoubtedly these multiple criteria have helped in increasing the homogeneity of sections.

All evidence points to the fact that grouping is relatively ineffective unless the content and methods of instruction are adapted to the various groups. Too frequently, little or no modification is made. The standards of accomplishment are adapted to the level of the group. The teacher of low-ability groups expects and is satisfied with low achievement.

A plan of homogeneous grouping, with a well worked out system of grouping, and with a curriculum adapted to ability levels is undoubtedly a start in the direction of making adequate provision for individual differences. However, it is doubtful if any single plan of classifying students can be effective in secur-

⁸ For a more extended treatment, see: H. H. Ryan and P. Crecelius, *Ability Grouping in the Junior High School*. New York, Harcourt, Brace and Company, 1927. W. S. Miller, and Henry J. Otto, "Analysis of Experimental Studies in Homogeneous Grouping," *Journal of Educational Research*, XXI, 95-102 (February, 1930). H. B. Alberty, and V. T. Thayer, *Supervision in the Secondary School*. Boston, D. C. Heath and Company, 1931, Chapter XIII. *The Grouping of Pupils*, Thirty-fifth Yearbook. The National Society for the Study of Education. Bloomington, Public School Publishing Company, 1936. Part I.

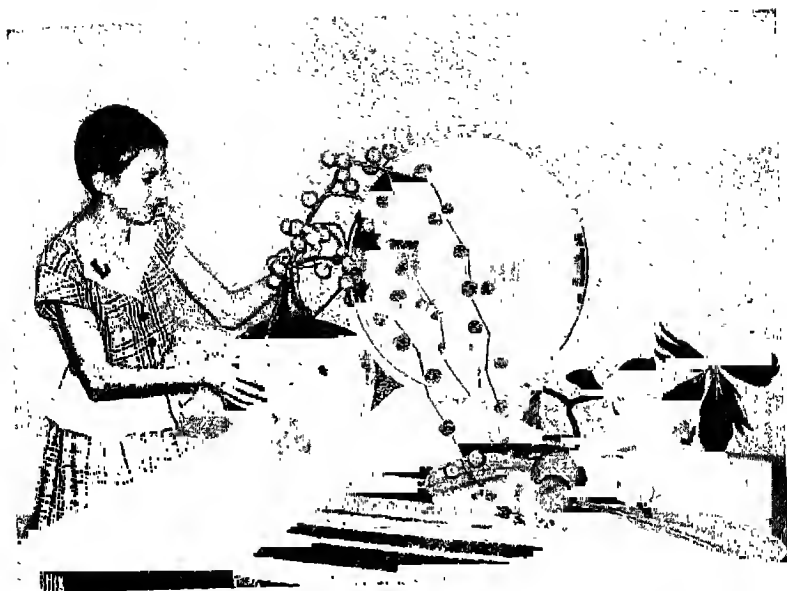


FIG. 2 Classrooms Can Be Attractive. A Student at William A. Bass Junior High School, Atlanta, Ga., Experimenting with a Detailed Art Arrangement for the Conference Room. Courtesy William A. Bass Junior High School.



FIG. 3 Students Enjoy Working with Art Materials. The Dental Clinic at William A. Bass Junior High School, Atlanta, Ga., Is Being Decorated by a Student Committce. Courtesy William A. Bass Junior High School.



FIG. 4 Direct Experience Stimulates Interest in Learning. Students at Emily Griffith Opportunity School, Denver, Colo., at Work on a PT-19a Airplane. Courtesy Denver Public Schools.



FIG. 5 Most High-School Boys Are Airminded. Students at Byers Junior High School, Denver, Colo., at Work on a Wind Tunnel. Courtesy Denver Public Schools.



FIG. 6 Construction Activities Are Especially Interesting to Junior-High School Students. An Eighth-Grade Group at the Laboratory School, State Teachers College, Indiana, Pa., Building Airplanes in Connection with the Air-Age Unit. Courtesy Laboratory School, State Teachers College, Indiana, Pa.



FIG. 7A. B. C. D Work Experience Can Be Educative. Ohio State University High-School Girls Help the Farmers, Summer Work Camp Near Lorain, Ohio. Courtesy Ohio State University School.



FIG. 8 Group Projects Provide for Democratic Living. The Eighth-Grade Rocket Club at the Laboratory School, State Teachers College, Indiana, Pa., Demonstrating the Reaction Principle in the Firing of a Rocket, Air-Age Unit. Courtesy Laboratory School, State Teachers College, Indiana, Pa.



FIG. 9 Most Group Projects Cut Across Subject Lines. A Ninth-Grade Group Working on Camouflage in Connection with the Air-Age Unit, Laboratory School, State Teachers College, Indiana, Pa. Courtesy Laboratory School, State Teachers College, Indiana, Pa.



FIG. 10 In the Democratic High School the Faculty Participates in Administration. A Meeting of the William A. Bass Junior High School Cabinet—the Policy-Making Group for the School Community. Courtesy William A. Bass Junior High School, Atlanta, Ga.



FIG. 11 Teacher-Student Planning Promotes Democracy. Planning a Unit of Work in the Parker District High School, Greenville, S. C. Courtesy Parker District Schools.

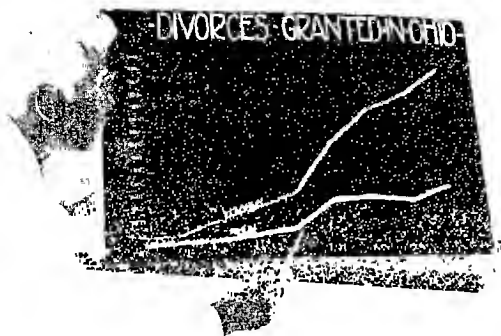


FIG. 12 The Modern High School Deals with Controversial Issues. A Ninth-Grade Committee Studies the Problem of Divorce in Connection with a Core Curriculum Unit on "Columbus—Its Problems and Future," The Ohio State University School. Courtesy The Ohio State University School.



FIG. 13 Core Curriculum Techniques Encourage Free Participation. An Unit on "Columbus—Its Problems and Future," Core Curriculum Unit, The Ohio State University School.



FIG. 14 Beginning Students Need Orientation to the School. A Group of Seventh-Grade Students Making a Relief Map of the Campus, in a Core Curriculum Unit on "Problems of Living at University School," The Ohio State University School. Courtesy The Ohio State University School.



FIG. 15 The Library Plays a Significant Role in a Modern High School. Reading Corner in the Seventh-Grade Core Room, The Ohio State University School. Courtesy The Ohio State University School.



FIG. 16 The High School Educates for Citizenship. Students at Morey Junior High School, Denver, Colo., Casting Their Ballots in a School Election. Courtesy Denver Public Schools.



FIG. 17 A Balanced Curriculum Calls for Much Staff-Student Planning. A Planning Conference of Staff and Students in one of the "Little Schools" at the William A. Bass Junior High School, Atlanta, Ga. The Staff Includes Teachers of Social Science, Art, Home Economics, Shop, Mathematics, English and Science. Courtesy William A. Bass Junior High School.

ing homogeneity, if factors other than ability to master traditional subject matter are to be taken into account. For example, individual differences in special abilities and interests will still exist and, of course, should be encouraged. Consequently, they should be provided for within groups that are supposed to contain students of like abilities. This suggests that a wide variety of groupings are necessary within each class and that the basis of grouping will change in terms of the nature of the work that is being carried on. It is doubtful, too, that a program of homogeneous grouping can be carried out without creating feelings of inferiority and discouragement, as well as snobbery and jealousy. In a democratic school, the program will be so arranged as to utilize the unique contributions of all without making disparaging distinctions among students of varying talents and abilities.

Homogeneous grouping reached the height of its popularity in the 1930's and since then has been on the decline, although it is still used in many schools, particularly on the elementary and junior high-school levels. The emphasis upon broad comprehensive units of work in which individual differences are cared for without segregation has been largely responsible for its decline.

THE PROJECT METHOD. The present-day emphasis upon unit teaching owes much to the development of the project method and its application to certain fields of secondary education. The term, "project," was first used in an educational sense in 1908 when R. W. Stimson, then an agent of the Massachusetts Board of Education, applied it to a plan of part-time work in the Vocational Agricultural High Schools of Massachusetts.⁹ In explanation and justification of the plan, we are told that: "Neither skill nor business ability can be learned from books alone, nor merely from observation of the work and manage-

⁹ See R. W. Stimson, *The Massachusetts Home Project Plan of Vocational Agricultural Education*. U. S. Bureau of Education, Bulletin, No. 8, Whole Number 599, 1914; and L. H. Dennis, "Home Project Work in Secondary School Agriculture," *National Education Association Proceedings*, 1916, pp. 622-626.

ment of others. Both require active participation during the learning period in productive farming operations of real economic or commercial importance. The masterful constructive imagination may accomplish much for him who possesses it, and for his needs, books and observation may finally result in vocational efficiency. The difficulty is that such powerful imagination is so rare as to constitute him who has it a genius far removed from the common run of boys 14 to 18 or 20 years of age who live on farms. . . . Farming activities readily resolve themselves into what may be termed farming projects. A farm project is a thing to be done on a farm. The thing done may contribute to some element of improvement about the farm, or constructing a concrete walk leading to the front door, planting and nurturing shade trees, making and maintaining an attractive lawn. . . . A farm project is, further, something to be done on a farm which involves a limited and definite amount of equipment, materials and time, and which is directed toward the accomplishment of a specified and valuable result."¹⁰

This plan revolutionized the teaching of agriculture, though it did not supplant entirely instruction from the textbook. Its success led to its introduction in other fields of vocational education and, under the stimulation of William H. Kilpatrick¹¹ and others, to the general curriculum. There has been much confusion as to what constitutes a project, but in essence, it means teaching and learning by means of concrete accomplishments, such as the building of a radio, the making of a dress, presenting a play, publishing a school newspaper, to which learning (e.g., attitudes, understandings, skills) is instrumental.

The term, "project method," has fallen into disuse, but the type of activities which were included in it have found a permanent place in activity programs and other curriculums which emphasize the extensive use of direct experience. Projects have become an indispensable part of unit teaching.

¹⁰ R. W. Stimson, *op. cit.*, 9-16.

¹¹ See William H. Kilpatrick, *The Project Method*, Teachers College Bulletin, 10th Series, No. 3. New York, Bureau of Publications, Teachers College, Columbia University, 1918. See also his *Foundations of Method*. New York, The Macmillan Company, 1925.

THE MORRISON PLAN. The Morrison Plan has undoubtedly had greater influence upon education procedure than any of the plans discussed up to this point. In addition to presenting a workable proposal for providing for individual differences, it has pointed the way to a new conception of the nature of learning as a unitary process, and the curriculum as a series of comprehensive units. Because of its great influence on modern educational practices, the plan will be discussed in some detail. It was formulated by Henry C. Morrison, formerly Director of the University of Chicago High School, and was first carried out in that school.¹² Since then it has been used widely, mostly by individual teachers, rather than by schools as a whole. Much of the "unit" teaching now found in the high school may be traced directly or indirectly to the influence of Morrison.

His plan is based upon the theory that the traditional school has made the serious mistake of assuming that "assimilative materials" in the form of lessons to be learned, or subject matter to be covered were the true learning products. Morrison holds that true learning represents an actual change in behavior on the part of the learner. This change is designated as an adaptation. The true learning products are identified as (1) attitudes of understanding, (2) attitudes of appreciation, (3) special abilities, and (4) skills.

Much of Morrison's technique is based upon his concept of adaptation which he regards as the essence of true learning. Taking his point of departure from the biological concept of adaptation or adjustment of the organism to his environment, he points out that, like the other forms of animal life, "the individual human being goes through a process of adjustment to the world in which he must live; only this is learned rather than physical adjustment. In other words, he learns how to live. The successive learnings in the process are adaptations in much the same sense as the innumerable steps in the evaluation of the physical organism were adaptations. . . . The adaptation is a unitary thing and the pupil has either attained it or he has

¹² See Henry C. Morrison, *The Practice of Teaching in the Secondary School* (Rev. ed.). Chicago, University of Chicago Press, 1931.

not. Individuals may differ greatly in the length of time and the ease with which they take on the change which a given adaptation implies, they may differ in the convincing character of the evidence touching the presence of the adaptations which their behavior reveals; but if two pupils have attained a given adaptation, they cannot differ with respect to the fact of their attainment."¹³

The fact that these adaptations are regarded as unitary, and as such are either acquired *in toto*, or not acquired at all, is the base upon which Morrison builds most of his teaching techniques. Since education consists of a series of successive unitary adaptations, it follows that a teaching procedure must be set up which is consistent with the learning process. Consequently, it is the business of the curriculum maker to discover the adaptations which are necessary to achieve his objectives, and then to set up units of learning which embody these adaptations, together with the "assimilative" material which is regarded as necessary to generate the learning products.

Since these adaptations differ in the sense that some of them are concerned with the development of attitudes of understanding or appreciations, while others are identified as special abilities, it follows that fundamentally different means or techniques for acquiring them must be employed. For example, if the teacher sought to "generate" the concept of biological evolution, which Morrison would designate as an *attitude of understanding*, a very different technique would be employed from that utilized in teaching the concept of honesty, or an appreciation of lyric poetry, for here the learning product is an *attitude of appreciation*. In a similar manner, Morrison provides for three other types of material, language arts, practical arts, and pure practice. These latter types, as the names imply, deal with the acquisition of the learning products known as *special abilities*, and *skills*. They are so obvious that illustrations appear to be unnecessary.

As was noted, these different learning products require dif-

¹³ *Ibid.*, p. 21. The only exception to this principle is that the acquisition of a skill, which is defined as facility, does not constitute an adaptation.

ferent techniques. To illustrate by means of an analogy: the fisherman selects his fly or bait with reference to the kind of fish which he wishes to catch. Only a novice would make the blunder of ignoring this point. True, he might succeed in landing a trout with the wrong kind of bait, but this would be purely accidental, and the expert fly caster would doubtless look with disdain upon such a bungling performance. In teaching, the problem is similar, according to Morrison. If an *attitude of understanding* of the concept of evolution is sought, it calls for the application of the science-type technique, with its five steps: (1) exploration, (2) presentation, (3) assimilation, (4) organization, and (5) recitation. To use the appreciation technique would be as inappropriate as using the wrong kind of bait in fishing. True, the student might acquire the desired adaptation, but if he did it would be something of an accident, and education should not be left to chance. Hence, the teacher, after identifying the learning products which he wishes his students to master, must select the appropriate techniques.

This brings us to a consideration of the nature of the Morrison unit which undoubtedly constitutes one of the principal contributions of the plan.

The best illustration of the concept of the "unit" is to be found in the science-type technique. Following out his insistence on unitary learning, Morrison proceeds to define a unit as "some significant and comprehensive aspect of the environment, of an organized science, of an art, or of conduct, which being learned results in an adaptation in personality."¹⁴

Morrison illustrates his definition by means of a unit in the field of general science entitled, "Our Water Supply." This is an important and significant aspect of the environment of everyone. It is a totality rather than a fragment. It requires the mastery of principles, facts, and processes, if the individual is to gain an attitude of understanding which will change his behavior toward the world in which he lives. E. R. Breslich has set forth the characteristics of a good teaching unit in such a way as to

¹⁴ *Ibid.*, 24-25.

clarify some of the vagueness which surrounds some of Morrison's explanations. These characteristics are as follows:

1. It is a body of closely related facts and principles so organized as to contribute to the understanding of an important aspect of the course.
2. It must be possible to present the unit as a whole, in a form so concise as to give the learner a clear conception of it before he undertakes to study it.
3. The objectives must be so definitely stated that they are clear not only to the teacher but also to the pupil. The learning products must be known.
4. All pupils qualified to take the course must be able to master the minimum essentials necessary and sufficient to attain complete understanding of the unit. In addition to this minimum, the unit must contain supplementary material to allow freedom in adapting the work to the individual differences of the pupils.¹⁸

These criteria could with slight variations be applied to the evaluation of suitable units in all of the various fields.

In order to contrast the development of a unit of the science type with the daily recitation technique, a brief explanation is given of the teaching procedure which would be employed in teaching the unit previously referred to which Morrison calls "Our Water Supply."

The teacher's first task is to determine the present experiences of the student which have a bearing upon the new learning to be acquired, and at the same time to provide an orientation of the teacher to the job of presenting the unit. This may be done by means of a pre-test, or oral discussion. This is the *exploration*¹⁹ phase of the unit. In time requirement, this step

¹⁸ E. R. Breslich, "The Unit in Mathematics," *Junior-Senior High School Clearing House*. V (February, 1931), pp. 324-325.

¹⁹ The reader will note the similarity in terminology and procedure of the various steps advocated by Morrison, to the steps in the Herbartian procedure which were usually enumerated as follows: (1) Preparation, (2) Presentation, (3) Comparison and Abstraction, (4) Generalization, and (5) Application. It should be carefully noted, however, that the Herbartian steps were intended to apply to a single recitation period; while the Morrisonian steps would ordinarily require several periods. See: H. B. Alberty, and V. T. Thayer, *Supervision in the Secondary School*. Boston, D. C. Heath and Company, 1931, pp. 308-310, and William Chandler Bagley, *The Educative Process*. New York, The Macmillan Company, 1920. Chapters XIX and XX.

would vary from perhaps a single period of thirty minutes to several periods. Here the teacher would seek to find out what the students already knew about water supply systems; what experiences they had had which would assist them in acquiring an intelligent attitude toward the unit.

The next step, the presentation, is the teacher's opportunity to present, perhaps in the form of a lecture, the broad outlines of the unit. He presents the material with bold strokes, leaving out the details. In essence, the general principles upon which the pump is based—density, pressure, etc., would be presented as essential to the acquisition of the new attitude. The test of mastery is the student's ability to apply these new principles in such a way as to exercise more intelligent control over his environment.¹⁷ As Morrison expresses it: "The teacher approaches the task of imparting, in its major essentials, in a single period, if possible, the understanding which is the unit. In brief, through direct, convincing oral presentation he teaches the unit itself."¹⁸ At the close, a presentation test may be given to determine whether or not the essentials have registered. If the essentials have not registered, a re-presentation is given. Contrary to the usual procedure, the students have, up to this point, had no assignment in the ordinary sense of the meaning of that term. Now, however, they are ready to enter the assimilation period which may require several days or even several weeks. In brief, the characteristics of this period are that the group is engaged in study with appropriate reference materials, and that the teacher, as a guide and director of study, helps the students over difficult places, and stimulates students who are capable of doing so, to work on a voluntary project or problem as evidence of their ability to pursue an independent interest.

In the unit under discussion, appropriate reference material and apparatus dealing with pumps and other aspects of the water supply would be placed at the disposal of the students. With the aid of guide sheets, they would use these materials for the purpose of making the understandings their own. One student

¹⁷ For a specimen presentation, see Morrison, *op. cit.*, 269-272.

¹⁸ *Ibid.*, p. 267.

might, as a voluntary project, construct a pump, another might study the problem of municipal ownership and control, still another might become interested in studying the historical background of the water supply systems. The extent of these voluntary activities is limited only by the interests of the students and the time which may properly be spent upon the unit. In this way, the "slack-time" which results from individual differences in rates of learning is taken up. When the teacher is satisfied that the students have properly assimilated the material, the group is again brought together for organization. Here the task is for the student to demonstrate that he has acquired the new understanding. Usually it takes the form of a test in which the student organizes all of the significant data which he has examined in terms of the new understanding which has been achieved. A further purpose of the organization period is to afford the student valuable training in developing the ability to write coherent and effective English. Finally, the organization is designed to further the establishment of the new attitude of understanding. The last step is known as the recitation, which consists, in the main, of oral presentations by different members of the class, class discussions, "floor talks," "written recitations," and the like, which will evidence conclusively that learning has actually taken place.

Many other features of Morrison's work are worthy of consideration. Among them are his revolutionary procedures in marking and appraising student progress, his insistence upon complete mastery, and his discussion of the psychology of learning. Then, too, the procedures advocated in the other teaching types are worthy of detailed discussion and appraisal. However, those salient aspects which appear to be appropriate to our problem—that of examining the movement toward the unitary treatment of learning—have been presented.

Morrison is undoubtedly open to attack on the grounds of an extreme formalizing of the learning process in prescribing the five invariable steps in the science-type unit. In this respect, his procedure, although much less objectionable, is subject to much the same criticism as the discredited Herbartian formal

steps. Psychologically, there are grounds for objecting to the all-or-none concept of mastery, and the separation of skill from understanding. His concept of adaptation also is an exemplification of the spirit of traditionalism, which conceives the principal function of education to be adaptation of the individual to a static society.

Again, fault may be found with the extreme compartmentalization of teaching types. It is very difficult and certainly unwise to separate appreciation from understanding, and it is a serious question as to whether or not such separation is not violating the unitary character which Morrison stresses. Finally, it must be pointed out that Morrison makes no attempt to unify the various fields and is satisfied to retain rather narrow compartmentalized subjects. Again, this might easily be construed as being inconsistent with the unitary conception of learning.

On the other hand, Morrison has performed a distinct service by helping us to distinguish between the shadow and the substance in learning. We can no longer regard mere ground to be covered as a desirable educational objective. He has also made a contribution to education by systematizing a procedure providing for individual differences which can be utilized by individual teachers even though the teaching staff of the school is not committed to a common procedure for all teachers to follow. Perhaps even a greater contribution is his attempt to present an understandable and workable concept of the nature of the learning unit. Here he has pointed the way, not only to a new method of selecting and organizing the curriculum, but also to a procedure which offers promise of an escape from the deadly routine of the traditional daily recitation method.

THE THAYER PLAN. Our discussion of the trends toward unit teaching¹⁰ would be incomplete without a brief discussion

¹⁰ V. T. Thayer, *The Passing of the Recitation*. Boston, D. C. Heath and Company, 1928. Readers will find it profitable to make a careful study of this work. He rejects the extreme formalism and compartmentalization of the plans which we have discussed, but finds in unitary teaching a solution of the problem of breaking the lockstep of the assignment-recitation method.

For other plans of unit teaching, see Roy O. Billett, *op. cit.*, p. 313. In a survey of over 8,000 schools, it was found that there were many different plans

of what the author chooses to call the "Thayer Plan," which is outlined in a significant contribution to educational theory and practice. Thayer examines modern tendencies in educational theory and methods, and finds in them suggestions for the development of a general teaching procedure. He organizes this plan into three steps or stages. The first phase has to do with "planning and assignment." Here the teacher plans tentatively the work of the unit and makes the assignment to the class. This assignment has for its central purpose "the identification of the pupil's purposes with those of the teacher." In doing this, the teacher presents an overview of the unit, and provides for the sense of direction needed by the students in their individual and group undertakings. The assignment phase ends when most of the students are ready to start work. It will continue with the others perhaps into the periods which follow, as occasion demands. The second phase is known as the *working period* during which "the bulk of the group will doubtless travel in a body; but with a skillful teacher there is no reason why individuals and small parties should not be encouraged to stop for a time, when especially interested, or again, progress more rapidly than others in order to gain time for a side excursion of peculiar importance to them. If the final meeting place is clearly agreed upon, all can meet at the proper time and while resting can exchange experiences to their mutual advantage."²⁰ Here the teacher studies his students, their interests and needs, and helps each one to develop what is for him the best method of work. He encourages individual students to pursue their special interests and to achieve higher levels of learning. Mastery of the "common core" of the unit is to be insisted upon for all students, though it is probably unlikely that any two students will achieve precisely the same degree of mastery. Thayer emphasizes again and again the very flexible character of the period,

in use that were characterized by the unit assignment. In addition to those we have discussed, the following were mentioned: (1) the problem method, (2) differentiated assignments, (3) laboratory plan, (4) contract plan, (5) individualized instruction. Undoubtedly these plans are all quite similar and employ some of the essentials of the plans already presented.

²⁰ *Ibid.*, p. 303.

and urges the teacher to adapt his material and methods to the group. Guide sheets indicating the work to be covered are recommended. The period as a rule closes with some kind of a test which has for its chief purpose "the organization of the work thus far engaged upon." Borrowing from the contributions of the socialized recitation, the author utilizes the term, the *socialized period*, to describe the third and final stage of this procedure. Here again, there are no fixed procedures to be followed. In general, this stage will consist of discussions by students, summaries of the general principles developed, "floor talks," individual and small-group reports of special problems or projects undertaken, and a general tie-up of the various phases of the unit. It will also be utilized for the purpose of discussing new work to be undertaken.

This plan has the advantage of flexibility in meeting varying conditions, and at the same time it has within it the possibilities for employing the contributions of the various methods and procedures, which in and of themselves are fragments which need to be synthesized into a unified whole. Needless to say, it also provides an escape from the traditional recitation system.

THE NATURE OF UNIT TEACHING

Like many other concepts in education, the meaning of unit teaching has become vague and almost meaningless. When Billett²¹ made his comprehensive study of unit teaching in 1933, he found that a large number of different plans which claimed to be distinctive, differed in name only. He found no essential difference in practice between "long-unit assignments, individualized instruction, the contract plan, the problem method, and the project method."²² And adding to this confusion is the fact that textbook writers have substituted the term, "unit," for chapter and have claimed to be following the

²¹ Roy O. Billett, *Provisions for Individual Differences, Marking, and Promotion*. National Survey of Secondary Education, Office of Education Bulletin, 1932, No. 17. Monograph No. 13. Washington, Government Printing Office, 1933.

²² *Ibid.*, p. 330.

unit plan. These difficulties arise over the fact that certain elements of unit teaching have been seized upon as being essential, and the unit has been defined in terms of one or more of these elements, rather than in terms of all significant characteristics. We shall now examine some characteristics of good unit teaching and attempt to arrive at a working conception of what is meant by unit teaching at the present time.

1. UNIT TEACHING RECOGNIZES THAT LEARNING TAKES PLACE MOST EFFECTIVELY IN TERMS OF WHOLEES RATHER THAN FRAGMENTS. Psychologically, this means that emphasis is placed upon significant and comprehensive problems, concepts, or activities rather than upon piecemeal activities which the student must somehow fit together. Theoretically, of course, there is room for a great deal of difference in interpretation as to what constitutes a "significant and comprehensive" whole. For example, a study of housing in a given community might be held to be but one aspect of community life, and therefore a fragment. The study of a particular community could not be isolated from the wider community—national and international. Again, housing is internally tied up with standards of living, community, health, government, and social institutions. Obviously, the concept of wholeness is a relative one, and must be interpreted in terms of the maturity of the learner and the potentialities of the proposed learning activities for making significant changes in the behavior of the learner.

The idea of unity or wholeness may be illustrated by a typical example of the project method in which the student builds a radio. True, a radio is not isolated from the total environment of the student, but the project has a certain wholeness that marks it off from other activities. It involves purpose, long-range planning, acquisition of related knowledge and skills, and, of course, has social significance. The extent of related learning that is involved is determined by the desired outcome. The student needs to know certain principles of electrical circuits, of sound transmission, of cabinet making, etc., but these all make sense in terms of the end product. There is no confusion

as to the difference between a whole and a fragment in an experience-centered project of this sort. It must be recognized, however, that even in this case, the building of a radio by an individual student might be a part of a broader unit on communication. In this event, however, the objectives of the unit would be different.

We conclude, then, that the meaning of a whole has to be interpreted with reference to the total situation, the recognized objectives of the group, the maturity level of the students, the relationships of the proposed activities to the present behavior of the student, and the major purpose of education in our democratic society. While there may be much quibbling over what constitutes a satisfactory whole, or unit, in any given instance, it is not hard to distinguish a unit from a fragment.

2. UNIT TEACHING RECOGNIZES THAT LEARNING TAKES PLACE MOST EFFECTIVELY WHEN THERE IS AN UNDERSTANDING AND ACCEPTANCE OF GOALS TO BE ACHIEVED, AND WHEN THERE IS FULL AND FREE PARTICIPATION IN PLANNING FOR THE ATTAINMENT OF THOSE GOALS. When learning consists mainly of covering ground, of studying a specified number of pages in the textbook, or of filling in blanks in a workbook, there can be little consciousness of goals or participation in the cooperative planning of work and outcomes. It is difficult to see how these conditions of cooperative planning could be fulfilled unless planning is done on a fairly long-range basis. Referring again to a unit on housing, abundant opportunity would necessarily be given to considering the scope of the activities, the possible trips that might be taken, the books that might provide reference material, the length of time that would be necessary for a full exploration of the possibilities. In other words, the students and teacher would have the opportunity to cooperate in making important decisions concerning the learning activities. It goes without saying that such activities are fundamentally necessary as a preparation for democratic citizenship. While it cannot be claimed that only unit teaching provides for such values, it is certainly true that such teaching facilitates and encourages democratic participation.

3. UNIT TEACHING RECOGNIZES THE NECESSITY FOR PROVIDING FOR INDIVIDUAL DIFFERENCES IN RATES OF LEARNING AND INTERESTS. This principle has been recognized by all advocates of unit teaching. Morrison proposes an "assimilation" period; Thayer, a "work" period; Miller a "directed study" period; Billett, an "individual-work" period. The character of this phase of unit teaching is relatively the same in all of these proposals. Class investigations, trips, group study, etc., in which the class work together are provided for, and in addition small groups and individual projects or problems are encouraged. Thus, in a unit on housing, the class as a whole might visit various sections of the city for the purpose of noting architecture, sanitary conditions, recreational facilities, and the like, but the boy with a certain flair for architecture might make a special study of this aspect of the unit, while a girl might specialize in home furnishings. The flexible character of unit teaching makes it possible for the teacher to recognize and encourage the development of individual interests, appreciations, and special abilities. And this does not involve the making of invidious distinctions, as is the case with so-called homogeneous grouping.

4. UNIT TEACHING PROVIDES A SOUND BASIS FOR EVALUATION. Since unit teaching provides for the setting up of goals in terms of changes of behavior such as attitudes, understandings, abilities, and skills, it is logical that the unit, rather than the month, term, or semester, should serve as the basis for evaluation. Hence, good unit teaching gives attention to the evidences of the attainment of the outcomes that are implied in the statement of goals which have been agreed upon by the teacher and the students. Thus, in a unit on housing which had for one of its goals the ability to recognize various types of architecture, the evaluation of the success of the unit would include that element in some form.

We may conclude, then, that unit teaching as it is being carried out at the present time involves (1) a broad comprehensive problem, (2) a series of related learning activities so organized as to promote common learnings for the entire group

and individual learnings in terms of specific needs, abilities or interests of students, (3) a plan for the evaluation of the outcomes. Usually unit teaching involves three stages as follows: (1) the *planning* stage in which problems are clarified, alternate plans of work considered, and decisions reached as to how the group shall proceed; (2) an *extended working* stage in which there is much group discussion, library research, investigations, experimentation, individual and committee work, and the like; and (3) a *culminating phase*, in which results are brought together, conclusions are reached, and results are evaluated.

THE PRESENT STATUS OF UNIT TEACHING. It is difficult, because of confusion in terminology and interpretation, to determine the extent to which unit teaching is practiced in the American high school. The most comprehensive study was made by Billett²³ in 1933. If by unit teaching is meant the use of long-range assignments, he concludes that "from a fourth to about four-fifths of the offerings (in 362 selected schools) in the several subject-matter fields are presented by means of unit assignments. The unit assignment is used least often in physical education, and most often in social studies. In most schools, the unit assignment is a decided innovation, functioning in a small number of subjects, often in only one subject."²⁴

No comprehensive study has been made since 1933, but observation of many schools and informal inquiry among teachers leads the writer to believe that the daily recitation procedure still characterizes at least three-fourths of the teaching in American high schools.

Why has a plan that has so much to recommend it from the standpoint of educational theory received so little acceptance in practice? The answer is not difficult to discover. The emphasis upon unit teaching as *method* has not been accompanied by corresponding emphasis upon the unit as a basis for curriculum reorganization. The result is that teachers have attempted, without marked success, to adapt a fixed textbook-ridden curriculum

²³ R. O. Billett, *op. cit.*

²⁴ *Ibid.*, p. 331.

to the unit approach. There are signs that a movement is under way to correct this difficulty. This trend, manifested in the current use of "source" or "resource" units as a basis for curriculum reorganization, will be discussed in the next chapter.

SUMMARY

Unit teaching originated in individualized instruction programs which were designed to break the lock step of the daily ground-to-be-covered conception. The Dalton and Winnetka Plans, homogeneous grouping, and the project method all made important contributions to the unitary concept of curriculum organization and learning as exemplified in the Morrison and Thayer Plans. While unit teaching has not yet become the recognized plan of organizing individual materials in the majority of high schools, it has received new impetus from the many attempts to interpret learning as a unitary process, and bids fair to become an important element in reorganizing the curriculum. The resource unit provides a satisfactory means of bridging the gap between the broad over-all curriculum organization and the day-by-day work in the classroom.

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THE RESOURCE UNIT IN CURRICULUM REORGANIZATION

IT HAS BEEN POINTED OUT IN THE PREVIOUS CHAPTER THAT THE unit plan of teaching, while maintaining a steady growth, has not revolutionized high-school instruction. One reason that teachers have been slow to accept it has been the difficulty of organizing learning experiences in terms of units, and the scarcity of materials that are appropriate to unit instruction. In 1938 the Rocky Mountain Workshop, held under the auspices of the Commission on the Relation of School and College of the Progressive Education Association, gave considerable attention to the development of "source" units which were intended for use in the schools represented by the teachers in the core area. They were developed by teachers representing the various subject-matter fields. Some of the titles suggest the nature of the enterprise: ¹ Living in the Home; How Man is Changing His Environment and Adapting Himself to New Conditions; Propaganda; Communication; Use of Leisure Time; Orientation to the New School.

THE NATURE OF THE RESOURCE UNIT

These source units as well as others discussed in this chapter are described fairly well by the following definition of a "resource unit," a term which is gradually supplanting the earlier one.

¹ These units have not been published, but a complete set (in mimeographed form) is on file in the Education Library of The Ohio State University.

A resource unit is a systematic and comprehensive survey, analysis and organization of the possible resources (e.g., problems, issues, activities, bibliographies, etc.) which a teacher might utilize in planning, developing, and evaluating a learning unit.²

ANALYSIS OF CURRENT PRACTICES IN RESOURCE-UNIT CONSTRUCTION

Since 1938 there have been a number of noteworthy attempts to develop resource units in various fields, principally in social studies. In some of them, the line between a resource unit and a learning unit is not sharply drawn, with the result that they provide a definite pattern of teaching. In others, the teacher is left to his own initiative in deciding how he shall use the material of the resource unit. In the following section will be described some of the materials that have been, or are being developed.

THE NATIONAL ASSOCIATION OF SECONDARY PRINCIPALS, AND THE NATIONAL COUNCIL FOR THE SOCIAL STUDIES PROGRAM. A type of resource-unit organization which possesses certain similarities to the unit plans of Morrison, Thayer, and others, is now being promoted by the above organizations. These units are being developed for use in the social science area of the senior high school.

Among the titles of the units, which are known as the "Problems in American Life Series," are the following: (1) How Our Government Raises and Spends Money, (2) American Youth Faces the Future, (3) Man and His Machines, (4) Economic Problems of the Post-War World, (5) Public Opinion in War and Peace, (6) International Organization After the War, (7) War: The Causes, Effects, and Control of International Violence.

The units have a two-fold purpose: (1) to provide the teacher with authentic and up-to-date information on a given unit, and (2) to suggest appropriate procedures for teaching and

² See Chapter X for an elaboration of this definition.

evaluating the unit. The first purpose is achieved by a carefully prepared statement by an expert in the field, the second, by a suggested plan of teaching prepared by a "master teacher." It is this second phase that reveals the various steps in the development of the learning unit.

In order to make the plan clear, a brief analysis will be made of one of the units—*Man and His Machines*.³

Part one consists of an analysis of the unit, under the following topics: (1) machines, like nature, constitute an environment for man, (2) how invention changes groups and modifies social relations, (3) the way in which inventions, creators of new environment, originate, (4) resistance to the adoption of new technological devices, (5) the impact of machines upon society, (6) unusual rates of change and the social lag, and (7) knowledge of the inventional process may help us in regard to the future. This analysis is a scholarly treatment intended to give the teacher a well-rounded view of the problems, issues, and basic facts of the unit. It has no direct reference to appropriate teaching materials or basic points of view which students might be expected to secure. It would be equally valuable to the layman who wanted to become more intelligent about the problems involved.

The second section of the unit is addressed to the teacher. It is intended to provide suggestions for the planning, organization, development, and evaluation of the unit.

The introduction points out the relationship of the machine and the problems that it creates, to our democratic culture. In other words, it sets forth the aims of the unit and the way these aims relate to the general purposes of the school in our democratic society.

The significant "understandings" are then presented. These are selected with reference to their value in developing attitudes on the part of the pupils. The following are illustrative of the twenty-five basic understandings:

³ Analysis by William Fielding Ogburn, *Teaching Aids* by Robert B. Weaver. *Problems in American Life Series*, Unit No. 3. Washington, National Association of Secondary-School Principals, 1942.

1. "Group life and social interaction are affected directly by inventions and scientific discoveries, and conflicts between attitudes pertaining thereto and social groups frequently result."
2. "There are many reasons for resistance to the adoption of inventions."
3. "The knowledge of what new inventions are to be and what social effects they precipitate gives us some understanding of what future conditions of society will be."
4. "Society has an obligation to direct boys and girls of today toward all sources of information possible about impending changes in the future."⁴

Understandings such as the above are necessary, according to the author, to the development of the attitudes which are held to be the major purpose of the teaching of the unit.

The following are illustrations of the attitudes that students are expected to gain from the study of the unit.

1. "The individual must accept undesirable features of an industrial society until solutions to social problems can be found."
2. "Inventions of the future should be put to better use than has been the case with earlier and present-day inventions."
3. "Inventors should not become discouraged by resistances to invention."
4. "There should be no attempt to declare a moratorium on inventions."⁵

These understandings are not to be taught *directly* to the student. They are to arise as the student pursues the study of the unit. The students should, however, be helped in arriving at understandings when such help will "save time."

The teacher is then helped to see the kind of student behavior that will be indicative of the acquisition of understandings and attitudes. Illustrations of these suggestions are the

⁴ *Ibid.*, p. 41.

⁵ *Ibid.*, pp. 42-43.

following: the student (1) "visits industrial plants, and tries to discover the effect of the machine on the workers," (2) "tries to discover how the machine has changed the organization and functioning of our social institutions," (3) "expresses tolerant ideas on controversial subject," (4) "shows a willingness to accept new or different ideas even though these may cause certain temporary inconveniences," (5) "will not oppose an invention that will benefit a more favored class of people such as a device to increase the speed of high-priced automobiles," (6) "will not drive through stop lights when there is no policeman on duty," and (7) "show that he has learned to adjust to living conditions that are necessary in a machine age."⁶ As the unit progresses, the teacher should study the behavior of students in order to discover the extent to which they are actually *learning*.

Up to this point, the discussion of the unit has been mainly to aid the reader in understanding the possibilities of the unit in changing student behavior. We now turn to the suggestions for classroom procedures. How shall the unit be initiated? The author suggests that the teacher write a simplified version of the unit and place it in the hands of the student in order that he may "see the story as a whole." Or the teacher may assign readings from available textbooks, which when placed together serve the same purpose as the simplified story. Along with this "story," the students should read a number of discussions of science and inventions. Out of the above initiatory activities, the students are expected, with the assistance of the teacher, to formulate major understandings, problems, hypotheses, and a list of activities in which they may engage in order to gain a comprehensive understanding of the unit and develop the appropriate attitudes. The principles which should determine the selection of suitable activities are stated as follows:

1. Each activity should be constructed so that the preparation will not require more time than is justified by the results gained.
2. Each activity should focus directly upon one of the basic understandings, that is, there should be no "busy work" or "lesson learning" assignments.

⁶ *Ibid.*, pp. 44-45.

3. Each activity should result in understanding and rationalization, not mere memorization for the purpose of later recall.
4. The activity need not be difficult to prepare in order to have educative value.
5. Each activity should present some definite problem, the answer to which is really desired by the pupils.
6. Activities of the community-study type should enable the student to apply the understandings he has gained to his local situation.
7. There should be considerable variety in the types of activities that are provided for real diversifications that will make the students more interested in the program.
8. Each activity is a means to an end, not an end in itself.⁷

The following are some of the suggested activities: (1) trip to a factory, (2) study of intricate machines, (3) study of power machinery in the community, (4) reading of articles, (5) floor talks by students who have studied particular aspects of the unit, (6) preparation of pictures and cartoons, (7) panel discussions, (8) class discussion, and (9) interviews.

Following the series of activities which are designed to develop the understandings and attitudes agreed upon as significant, the unit provides for three types of "culminating activities." Each student is expected to organize the material of the unit in terms of a "well-ordered analytical sentence outline of the unit as a whole." Each student prepares a list of statements that reveal his opinions and points of view on the significant aspects of the unit. As a final activity, the teacher shows a number of films that have a bearing on the unit. These are then made the basis of a general class discussion which is intended to reveal the changed attitudes of the students and their ability to apply the understandings gained.

The author recommends that the unit be followed by a testing program which utilizes the following types of tests: (1) information tests, (2) understanding tests, (3) attitude tests, and (4) tests designed to measure intangibles.

It will be noted that there is considerable similarity between the procedure followed in the unit described above and the science type developed by Morrison. Morrison's exploration and

⁷ *Ibid.*, p. 48.

presentation stages are for essentially the same purpose as the initiatory activities described above. The period devoted to activities corresponds to Morrison's assimilation stage. The culminating activities period is designed to accomplish the same purposes as Morrison's organization and application stages. It will be observed also that the general procedure of development is closely akin to the Herbartian formal steps, the principal difference being that the Herbartian technique was applied to each day's lesson, while the Morrison procedure and the *Problems in American Life Series* apply to the unit as a whole.

Another similarity between Morrison's unit procedure and the unit described above is the emphasis at the outset upon understandings as the basic learning products. However, Morrison seems to hold to the position that the acquisition of one major understanding indicates that the student has mastered the unit, and that mastery is a unitary product which the student either possesses or fails to possess. There is no middle ground. On the other hand, the author of the unit under discussion lists a large number of understandings which are basic to the unit. Obviously, students will vary greatly in the depth and extent of mastery of these understandings.

A significant difference between the two plans is the concept of the nature of understandings. Morrison considers an understanding as synonymous with an attitude. In other words, when a student acquires an understanding his behavior is changed—he has a new attitude. The authors of the *American Life Unit* seem to regard understandings and attitudes as separate, though interrelated in a way that is not clear from the context.

This series of units marks a significant departure from the deadly ground-to-be-covered daily recitation procedure. It has a number of advantages that need to be pointed out. First, it provides the teacher, who is trying to reconstruct his curriculum and procedure, with well-organized content through which he may gain an understanding of the unit. This gives him a needed sense of security. Second, it provides him with a plan for teaching the unit and with adequate teaching aids (bibliographies; films, evaluation devices, etc.), and third, it provides a usable

plan to aid him in reorienting his instruction in terms of significant problems of contemporary living.

On the other hand, the proposed plan has certain weaknesses of which the teacher should be aware. First, the unit under discussion is too narrowly conceived. That is, it is restricted to social science materials whereas a truly comprehensive view of the unit would include materials from other fields as well. For example, the unit is rich in science implication, but materials from that field are used only incidentally. Language and art could also play significant roles. Second, the unit is subject-matter centered, utilizing direct first-hand experience to a limited extent. Third, the basic understandings are determined in advance, and are the goals of the instructor. This allows genuine thinking only a secondary place in the process of learning. In other words, the emphasis appears to be upon generalizations to be mastered rather than upon problems to be solved. This opens the door to indoctrination. Fourth, the unit does not provide adequately for individual differences. Fifth, only indirectly does the unit take into account the characteristics of adolescent development. It tends to assume that the material presented is at the maturity level of students and that it meets their interests and needs. Sixth, the unit tends to be more like a learning unit than a resource unit since it prescribes a definite pattern of development.

THE KANSAS PLAN. The general framework of the Kansas program was presented in the previous chapter. We shall now examine the conception of the resource unit which is the culminating aspect of the instructional program.⁸ After having set forth the basic purposes of the secondary school, made an analysis of child development at various levels, and suggested "leads to units of work," in the form of questions "stated as students ask them," under each of the major "areas of human activities," the committee develops these "leads" into units of work in a core program drawing on material from health and

⁸ The Kansas Program for the Improvement of Instruction. Bulletin No. 6. Topeka (Kansas), State Department of Education, 1939.

science, social science, and English. For purposes of illustrating the procedure advocated, a unit which closely resembles the unit discussed previously, *Man and His Machines*, has been selected. The unit is entitled: *How do Science and Technological Development Influence my Life?*

From the scope and sequence chart⁹ we find under "Major Area of Human Activity," no. 3 entitled "Producing and Distributing Goods and Services," that students in grades ten to fourteen ask the question concerning the influence of science and technology on living stated above. This question is regarded to be of sufficient importance as a "lead" to include it in a list of suggested units¹⁰ for all students in the upper grades of Kansas schools.

The unit is introduced by a section on the "importance of the problem." This is intended as background material for the teacher, but is directly related to the teaching and learning process. This raises some question as to whether the unit should really be classified as of the resource type. The following quotation, bearing upon the relation of science and religion, indicates the manner in which the committee that prepared the units relates the material to the classroom situation.

Religion is too vital a force in the lives of young people to be disregarded by the curriculum of the school. The evasions of science teachers concerning pupil questions on science and religion have been many. The theory of evolution when properly interpreted by a well-informed teacher can create a respect of the Bible. The discoveries of archaeologists should be integrated with historical statements of the Bible, and young people, at this critical period of their lives, may learn that the main truths of the Bible again and again are substantiated by science.¹¹

The committee then supports the above position by evidence and argument. Following the discussion of the importance of the problem, the "history of the problem" with particular reference to Kansas is discussed, particularly in regard to the social

⁹ *Ibid.*, p. 21.

¹⁰ *Ibid.*, p. 390.

¹¹ *Ibid.*, p. 540.

and economic aspects of science and technology, which it is claimed have been neglected in Kansas schools. Teachers are therefore admonished to: "teach an appreciation of science; show the interdependence of science and of man's social activities. Develop the scientific habit of mind in Kansas people. This can be done if the question of 'How Do Science and Technological Development Influence My Life?' is answered properly in the minds of Kansas children."¹²

Next are explored "*Pupil Interest and Community Situations to be Used in Dealing with this Problem.*" This section canvasses the possible community resources such as industrial plants, testing laboratories, farms, dairies, department stores, theaters, junk yards, and the like, which may be utilized to help the older adolescent to become sensitive to the problems of technology. The significance of libraries and museums is also stressed.

The desirable learning products which should be developed are classified as attitudes, generalizations, and abilities. The following are illustrations of each of these classifications: "An attitude of worship for directing power which has produced such a detailed and comprehensive organization of everything in the continuum should become a vital issue in the pupil's mind."¹³ "Problems must be solved by collecting data and drawing conclusions from them. Continually man must hold instinct, superstition, prejudice and intolerance in check in order to reason by the scientific method"¹⁴ is stated as an important generalization, and as a significant ability is listed: "To be able to recognize superstitions and give them no credence."¹⁵ These suggested outcomes set the stage for learning.

The next section deals with "*Suggested Activities*" which might be used to develop the learning products which should grow out of the unit. Among them are the following: (1) visiting an electrical generating plant, (2) learning interdependence in a variety store, (3) visiting a flour mill, (4) evaluating super-

¹² *Ibid.*, p. 545.

¹³ *Ibid.*, p. 548.

¹⁴ *Ibid.*, p. 549.

¹⁵ *Ibid.*, loc. cit.

stitutions, (5) debating, (6) listening to an old shoe cobbler tell of his trade, (7) making a scrapbook which compares the old with the new, (8) discovering the interdependence of topics studied in other subjects and in science, (9) picturing the interdependence of nations, (10) using the school plant as a subject of analysis, noting the effect of science upon it, (11) keeping a diary of one day's activities, (12) visiting the city sewage-disposal plant, (13) demonstrating a discovery of pure science, (14) visiting a large farm to determine the effect of science and technological development of farming, and (15) discovering the relation which exists between science and religion.

The final stage deals with the problem of the evaluation of the unit. No formal evaluation instruments are recommended, but the teacher is to seek evidence of changes in student behavior in the attitudes, generalizations, and abilities that are suggested earlier in the unit. For example, the teacher is to look for such evidence as the following: "He discusses with ease the matters relating to the Bible, creation, and the Power which created the existing order disclosed by science. He no longer is afraid of being regarded as a 'sissy' when he mentions such things. To him science has placed religion on a more manly and elevated plane. Having realized the majestic nature of things revealed by science in regard to law and order in the universe, he will be glad to admit to the belief in a supreme power."¹⁶ In addition to evaluation by the teacher, the student is also expected to evaluate what he has learned. For example, the student might write: "I thought a lot of the stories in the Bible were proven false by science. Now I realize how wonderfully accurate the Bible is, considering the primitive people for whom it was written and the number of translations through which it has passed. There must be some Power back of such a wonderful organization of natural law and order as science is disclosing."¹⁷

¹⁶ *Ibid.*, p. 564.

¹⁷ *Ibid.*, p. 566.

An excellent bibliography for the student and selected references for the teacher are included.

Undoubtedly the Kansas Plan for developing of resource Units has many strong features. Among them are the following: first, the units cut across several fields, e.g., science, social science, and language. This breaks down the compartmentalization that tends to create a certain artificiality of treatment. Second, the unnecessary separation of subject matter and method, as found in the *Problems of American Life Series* is avoided. Third, the teacher is greatly assisted in organizing and teaching the unit through suggested objectives, activities, methods of evaluation, bibliographies, and leads to other units of work. This undoubtedly adds to the security of the teacher who is attempting to break with traditional methods. Fourth, the selection of units is based upon the general purposes of education, the known or assumed characteristics of adolescent development, and the persistent problems of our culture; and fifth, the teacher is encouraged to make extensive use of the local environment in the development of the unit. This is in contrast with the highly abstract nature of the usual treatment of science and technology. Sixth, the Kansas proposal avoids the stereotype of assigning one center of interest to each grade or level. This pattern, set by the Virginia curriculum and copied by many others, has long been a major point of criticism.

Excellent as the plan is, there are several weaknesses which teachers should seek to avoid. First and foremost is the danger of indoctrination. In the unit which has been discussed, the teacher is urged among other things to teach the scientific method, to help students to rely upon it as a way of life. Yet, in the treatment of the problem of the relationship between science and religion, for example, the attitudes and understandings that students are expected to secure leave no room at all for the use of scientific method. The teacher is told what these attitudes should be, how to discover when the student has acquired them, and then to clinch the matter; the student, in evaluating what the unit has done for him, is expected to reflect the dogma which has been taught. There are, of course, several

alternative positions which may be taken upon the problems of the relationship between science and religion. If the teacher actually has faith in the method of intelligence, he will not dictate the answer to the students, but rather will present *all* of the pertinent data and encourage the student to arrive at a solution. This criticism applies to any plan which sets forth in advance the attitudes and understandings to be achieved. It is more flagrant in this case because of the highly controversial nature of the problem. Setting forth generalizations about which there can be no reasonable doubt is open to fewer objections, but the principle involved is the same. Second, it is far from clear from the manual that sufficient account has been taken of the characteristics of adolescent development. The general assumption seems to be that all, or nearly all, students in the upper years of the high school ask the sort of questions which are listed on the scope and sequence chart. This assumption probably has insufficient justification. Unfortunately, we are not told how the committee obtained the "questions asked by pupils."

THE SANTA BARBARA COUNTY PROGRAM. The Santa Barbara (Cal.) County Curriculum development program¹⁸ uses the resource unit technique for helping teachers to become oriented to unit instruction in the core. Seven "sample" units are presented to serve as guides for the organization of "source units." Presumably, groups of teachers will develop many of these units as the need for them arises. In order to clarify the proposed "guides," the unit, "Making Our Water Supply Serve Human Needs,"¹⁹ which is fully developed will be discussed briefly at this point.

The unit is divided into five sections, as follows: (1) Generalizations, (2) Suggested Pupil Activities, (3) Suggestions for Promoting Pupil Growth in Harmony with Our Aims of Education, (4) Evaluation, and (5) Bibliography.

¹⁸ Santa Barbara County Curriculum Guide for Teachers in Secondary Schools. Santa Barbara, The Schauer Printing Studio, Inc., 1941, Vol. IV.

¹⁹ *Ibid.*, pp. 50-83.

Preliminary to the presentation of these five steps, the point is stressed that the philosophy of the school system²⁰ should guide the teacher in evaluating desirable changes in behavior on the part of students. Detailed illustrations of ways of accomplishing this are included in the evaluation section.

1. GENERALIZATIONS. Like units previously described, a number of generalizations are presented to serve as "additional guides" to directing and evaluating student growth. The following is a typical generalization: "Intelligent water conservation measures will raise the standard of living by increasing soil productivity, providing recreation, and an increased supply of non-human powers."²¹

2. SUGGESTED PUPIL ACTIVITIES. A series of practical pupil activities are set up under the following headings: sources of water supply, man's dependence on the water supply, conservation of the water supply, vocational opportunities and conditions. The following are representative suggested activities under the last mentioned classification.

- a). "Consult census reports to determine the number of people in occupations depending on the water supply."
- b). "Describe the kind of work in the various industries dependent upon water supply."
- c). "What training facilities are being provided in the country for directors and workers in occupations maintaining and utilizing our water supply, i.e., sailors, engineers (civil and sanitary), fishermen, coast guard employees, foresters, irrigation experts, soil conservation workers, and city water works supervisors."²²

3. SUGGESTIONS FOR PROMOTING PUPIL GROWTH IN HARMONY WITH OUR AIMS OF EDUCATION. Under this heading are listed the kinds of activities through which the major aims of the school may be fostered. These are as follows:

²⁰ *Ibid.*, pp. 3-19.

²¹ *Ibid.*, p. 51.

²² *Ibid.*, p. 56.

Self-respect, creativeness, scientific attitude, cooperation, responsibility, social effectiveness, and development of skills. For example, under the last-mentioned aim, the following activities are listed for developing "quantitative thinking and skill in the use of numbers."

- a). "Calculating areas in the study of contour maps."
- b). "Making a percentage comparison of the amount of precipitation, the evaporation, and the holding power of the soil."
- c). "Calculating the amount of material carried by water at various rates of flow."²³

4. EVALUATION OF ATTITUDES, SKILLS, AND UNDERSTANDINGS. In this section is given the kinds of evidence and suggested types of tests that might be used to determine progress of the students toward the attainment of the aim listed above. For example, in determining progress toward creativeness, the following list of questions is suggested:

- a). Is the problem solved in a way that is new to the individual?
- b). Did the pupil originate the method of solution?
- c). Did the pupil plan his own procedures?
- d). Did the pupil seek and see problems for original solution?
- e). Did the pupil set his own standards?
- f). Is the pupil's participation the result of his own volition?
- g). Is there discernible improvement in breadth of concept and in technique of problem solving?
- h). Is there improvement in the technique of expression?
- i). Is creative thought carried over into some concrete form of action?²⁴

5. BIBLIOGRAPHY. This section includes books, bulletins, and pamphlets, fiction, poetry, magazines, and maps.

A careful examination of the resource unit summarized above reveals a number of excellent characteristics. First, it seeks to relate the unit to the stated aims of the school system, and to show teachers how they may use certain materials and activities in order to achieve each one of these aims. Second, it

²³ Ibid., p. 61.

²⁴ Ibid., p. 73.

lists far more activities than any one teacher could possibly use. *Third*, the activities are sufficiently numerous and varied to make it possible for the teacher to provide for individual differences. *Fourth*, its organization is such that it would not be likely to provide a stereotype which the teacher could follow blindly. Possible weaknesses are: *first*, there is perhaps an undue compartmentalization of activities in terms of each aim. After all, the aims are closely interrelated, and activities ought to promote the attainment of several aims. *Second*, there seems to be no reason why the unit should start with generalizations. Rather they should grow out of the activities. As has been stated before, this practice of setting up generalizations as objectives is very likely to lead to indoctrination. *Third*, not much help is given the teacher in determining the possible scope of the unit; and *fourth*, the area of audio-visual aids is almost completely neglected.

There can be no doubt that, in the program such as that which is being developed in Santa Barbara County and city, a real need exists for the development of a large number of resource units. An excellent start along this line has been made.

ANALYSIS OF RELATED TYPES OF UNITS

Two other series of units, while not strictly of the resource type, are worthy of discussion, because of their significance in curriculum reorganization.

THE NORTH-CENTRAL PROPOSAL FOR UNIT INSTRUCTION. Since 1935, the Committee on Experimental Units of the North-Central Association of Colleges and Secondary Schools has been developing a series of units²⁵ designed to give students "a faithful picture of the way in which our American Government operates," rather than a systematic study of backgrounds and origins. The following titles of units provide an understanding of the general nature of the material: (1) Latin America and the World Struggle for Freedom, (2) Defense of

²⁵ *Unit Studies in American Problems*. Boston, Ginn and Company.

the Western Hemisphere, (3) In Service with Uncle Sam, (4) Democracy and Its Competitors, (5) Why Taxes? (6) Government in Business, (7) Housing in the United States, (8) Conservation of Natural Resources, (9) Civil Service, (10) Youth and Jobs.

Unlike the *Problems in American Life Series* previously discussed, these units are intended for student use, consequently they are not really resource units. They are manuals which give the student a comprehensive view of the units. In a sense they correspond to the "story of the unit" which the previous series utilizes in the initiatory phase of the development, except that they are more comprehensive and are designed as basic materials for study. Therefore they may be regarded as textbooks dealing with a limited block of subject matter. For example, the unit on *Civil Service*²⁶ is divided into the following three parts: Civil Service and the Federal Government, Civil Service in the States and Counties, Civil Service in the Cities. The treatment of each of these topics does not differ materially from that found in a good textbook on government except that it is more comprehensive and exhaustive. The author has little to say about teaching method. He leaves the matter of organization largely to the teacher. All of the units, however, do contain appendices which list a large number of "projects and problems for discussion." These projects and problems do not differ materially from the suggestions usually included at the close of each chapter of a modern textbook.

This plan has a number of obvious advantages. Among them are the following: First, it provides the teacher with up-to-date materials on vital topics. Since the manuals are designed for student use, they can be readily used in the average school without any marked or revolutionary changes in the general plan of organization. Second, they short-circuit a good deal of time-consuming search for suitable reference materials. Third, they can be kept up-to-date more easily than the textbook, because each unit is bound separately in paper covers. Fourth, they encourage the teacher to break with the daily assignment-recita-

²⁶ Prepared by C. C. Carrothers.

tion procedure, and to plan in terms of larger blocks of time. The objectional features of the plan include the following: First, the units present subject matter to be mastered rather than problems to be solved; second, there is no attempt at unifying related fields; third, they provide a ready-made scheme which leaves little room for cooperative student-teacher planning; finally, they do not appear to be based upon a clear-cut philosophy of education.

THE CONSUMER-EDUCATION STUDY. This study, initiated in 1942 by the National Association of Secondary-School Principals and financed by the National Better Business Bureau, culminated in the preparation of a series of "teaching-learning" units for use in the high schools.²⁷ According to Thomas H. Briggs, the director of the study: "These units, based upon objective data, do not attempt either to promote the interests of producers and sellers or to revolutionize our economic system. Both purposes, it is held, are outside the functions of the schools. Instead the units are intended to help young people to become more intelligent, more effective, and more conscientious consumers in the economy in which they live."²⁸

The units are intended for use in independent courses in consumer education or in connection with existing courses in areas such as science, mathematics, agriculture, home economics, business education, and social science. Presumably, they could also be incorporated in a core curriculum which cuts across subject lines, since they draw heavily upon a larger number of fields of knowledge. Each school would have to decide how best to use the material.

In order to clarify the general plan and organization of the

²⁷ *Consumer Education Series*. Washington, Consumer Education Study, National Association of Secondary-School Principals. The following units are available: No. 1—*The Modern American Consumer*; No. 2—*Learning to Use Advertising*; No. 3—*Time on Your Hands*; No. 4—*Investing in Yourself*; No. 5—*Economic Choices for America*; No. 6—*Using Standards and Labels*.

²⁸ *The Modern American Consumer: His Problems and His Opportunities*. Unit No. 1, *Consumer Education Series*. Washington, Consumer Education Study, National Association of Secondary-School Principals, 1945, p. 1.

units, a recent unit, *Investing in Yourself*,²⁹ will be discussed briefly. The unit consists of seven chapters as follows: (1) You Are Worth Investing In, (2) Values and Goals for Your Investment in Yourself, (3) What Is Your Present Capital? (4) Investments of Time, (5) Investing in Education, (6) Investing in Your Work, (7) Investing in Your Personal Development.

This unit is addressed to the student. It sets problems for him to solve and proposes activities for him to carry out. In short, it prescribes a definite pattern whereby a student may plan a life program, and gives him the essential sources of information for doing so. For example, in Chapter II the student is told to write a paper on "What I Want to Get Out of Life," or "If I Had Three Wishes." In Chapter III he rates himself on an elaborate scale which the author provides. In Chapter IV he lists the way he spends his time. In Chapter V he is told to make a survey of educational and recreational facilities in the locality. In Chapter VI he is asked to choose a vocation in which he is interested and study his own potentialities with reference to it, and finally in Chapter VII, he is asked to "tell someone in whom you can confide all you have learned from your thorough reading and thinking about this chapter and what you plan to do about the suggestions."³⁰

At the beginning of each chapter, questions are raised, presumably for the purpose of arousing the student's interest. Following these questions is a section in which the student is given help in answering the questions. Concluding each chapter is a section entitled, "You Carry On," which is intended to stimulate the student to carry out certain activities in line with the suggestions of the author, and a carefully selected annotated bibliography.

This unit does not, of course, meet the definition of resource unit as stated at the beginning of the chapter. It is a well-written textbook for students which bears upon one aspect of consumer education. The teacher may use it in any way he sees fit, but its organization would seem to suggest that the

²⁹ Unit No. 4 prepared by Ruth Strang.

³⁰ *Ibid.*, p. 90.

problems, proceedings, activities, etc., are complete and adequate, and therefore that the principal role of the teacher is to find a place for it in his program, and to teach it as it is written.

The emphasis on consumer education which is proposed by the series is long overdue. The Unit is well developed and cleverly illustrated. There is danger, however, that it will fail to stimulate the teacher's initiative, or to further the development of the movement toward greater democracy in the classroom as exemplified by teacher-student planning. In short, most of the thinking and planning has been done by the author.

OTHER PLANS FOR PROVIDING RESOURCE MATERIALS

The resource unit as described in this chapter is intended as a procedure for curriculum reorganization which will help the teacher in planning and organizing appropriate learning units for the classroom. Obviously there are other ways of accomplishing this same purpose. Two of them which are closely related to resource-unit development are worthy of note.

THE MATERIALS BUREAU. The Parker District,⁸¹ and Greenville, South Carolina, schools have pioneered the development of the materials bureau as a means of providing resources which the teacher may use in planning for classroom activities. In the Parker District, the bureau is housed in a large room supervised by a trained librarian and a clerical assistant. For each of the "centers of interest" or units which the school utilizes, the librarian has assembled mounted pictures, pamphlets and bulletins, wall posters and charts, stereographs, slides and recordings, and any other material which a teacher might find helpful in planning a unit of work. The librarian keeps the material up-to-date, and assists the teacher in finding what is needed. A bureau of the type described is not necessarily a

⁸¹ See James Tippet, et al., *Schools for a Growing Democracy*. Boston, Ginn and Company, 1936; Elizabeth Solters, *The Materials Bureau*. Greenville (S. C.), The Parker District School, 1941.

substitute for the development of resource units. As a matter of fact, it would be a valuable supplement to such a program.

THE RESOURCE FILE. The Ohio State University School is experimenting with the resource file as an aid to teachers in developing units of work in the core curriculum. As units are developed in a given problem area,⁸² a file is built up in the library. In this file are included materials under such headings as (1) Aims and Purposes, (2) The Scope of the Problem Area, (3) Suggested Student Activities, (4) Suggestions for Evaluation, and (5) Bibliography and Teaching Aids.

The flexible character of this plan makes it possible to keep the file up-to-date. The central location of the file makes it easily available to all teachers.

SUMMARY

In this chapter it has been possible to touch only briefly on the trend toward the development of resource units. As has been indicated, there is wide variation in form and content among the units that have been developed. However, it seems possible to generalize to some extent upon the basis of current practice.

1. The resource unit has evolved as the result of curriculum-revision plans that break rather sharply with conventional curriculums and methods.
2. The resource unit is designed to provide a guide for the teacher without prescribing exact content and procedures.
3. The resource unit is built upon the assumption that teachers and students ought to plan cooperatively for the development and evaluation of learning units.
4. Most resource units avoid the imposition of a pattern of procedure upon the teacher.
5. Most resource units provide for individual differences among students, not only in rates of learning, but also in interests, attitudes, and particular needs.
6. One danger in the use of the resource unit is that it may become a stereotyped pattern which is as deadly as the fixed daily assignments from the textbook.
7. Another danger in the use of resource units is that they may

⁸² See Chapter VI, pp. 167-168.

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provide a neat scheme for indoctrinating the student (and possibly the teacher) in certain preconceived attitudes.

8. Materials bureaus, and resource files are being used in some schools to help to meet the need of the teachers for aid in planning units of work.⁸⁸

⁸⁸ For further reading, see bibliography at the close of the following chapter.

DEVELOPING RESOURCE UNITS

THE DEVELOPMENT OF THE RESOURCE UNIT, DEFINED AS A systematic and comprehensive survey, analysis, and organization of the possible problems, issues, activities, teaching aids, and the like, that a teacher might utilize in building units of work cooperatively with the students, is held to be a valuable procedure for reconstructing the high-school curriculum.

USING THE RESOURCE-UNIT TECHNIQUE

In the previous chapter some of the current practices in building resource units were presented and evaluated. The purpose of this chapter is to provide a framework for building resource units which a group of teachers might find helpful in reorganizing the curriculum of a particular school. The technique may be used as an over-all plan for the more or less complete reorganization of the curriculum, or for the development of one or more units in a particular area. Suppose, for example, that a school wishes to develop one or more units in "conservation." Rather than cast about for a suitable textbook, a group of teachers under the guidance of the principal, or someone designated by him, might undertake to construct a resource unit. The group of teachers selected to carry on such a project should, of course, represent all of the subject fields that have a contribution to make to the solution of the pressing

problems of conservation. This would most certainly include teachers of language, social studies, science, mathematics, and the arts. These teachers would marshal all of the possible resources for developing a unit that would provide potentially vital experiences for students.

THE PURPOSES OF THE RESOURCE UNIT

The purposes of the resource unit are as follows: ¹

1. To furnish suggestions for materials, methods, activities, teaching aids, and evaluative procedures for building a learning unit.
2. To provide a means of helping the teacher to organize materials so that he can depart from the traditional use of the textbook as a guide in curriculum development.
3. To provide suggestions for the teacher for translating an educational philosophy into practice.
4. To serve as a guide in helping the teacher to include in the learning unit certain important values basic to education in a democracy.
5. To sensitize the teacher to all of the significant problems and issues that have a bearing on an area of living.
6. To utilize the personnel resources of the school appropriate to the cooperative pre-planning of a particular unit.
7. To conserve the time of the teacher.
8. To make it possible to have teaching materials available when needed.

CRITERIA FOR CONSTRUCTING AND EVALUATING A RESOURCE UNIT

Criteria for constructing and evaluating resource units will be different for each teacher and school system since the basic concepts of learning units vary. It must be kept clearly in mind

¹ For much of the material in this chapter, the author is indebted to a group of his graduate students who worked with him in developing a bulletin entitled, "How To Make A Resource Unit" in a seminar at the Ohio State University. This group consisted of Carmen Castro-Pozo, Anna Carol Fults, Vernal Mann, Eugene Stanley, W. F. Tidwell, and Alberta Young.

that the resource unit is a reservoir of ideas from which the teacher can draw in the construction of actual learning units. Therefore, in the selection of criteria for constructing and evaluating resource units, care should be exercised to see that the criteria used are suitable for the type of learning unit that is to be developed and are in keeping with the philosophy of the school. The criteria suggested here are for use by teachers who subscribe to democratic values in working with students.

1. THE RESOURCE UNIT SHOULD RECOGNIZE THE NEEDS AND INTERESTS OF THE STUDENTS. Individuals differ greatly in abilities, capacities, aptitudes, and interests. Some learn rapidly, others slowly; some have creative ability, others have little; some find one type of experience helpful, others meaningless. The resource unit should provide opportunities for each student to participate in the various phases of the work to the extent of his ability to contribute on his own level. Therefore, the unit should suggest a variety of learning activities to meet individual and group needs.

2. THE RESOURCE UNIT SHOULD SUGGEST OPPORTUNITIES FOR STUDENT PARTICIPATION IN PLANNING, DEVELOPING, AND EVALUATING THE WORK. Just as participation of a group in the direction of its own affairs is fundamental to a democratic society, so is participation by the students in directing their affairs fundamental to democratic living in the school program. Likewise, it is essential in relation to the development of the personal qualities needed for living in a democratic society. Students develop standards and values of their own only as they think, plan, judge, make choices, and assume responsibilities which are important and worthwhile to them. A listening, telling, reciting, and following-directions type of activity has little relation to the student's real values and standards.

3. THE RESOURCE UNIT SHOULD PROVIDE SUITABLE MATERIALS TO FURTHER THE SOCIALIZATION OF THE STUDENTS. A classroom in which there is democratic living will provide oppor-

tunity for the students to cooperate in meaningful and significant group activities as well as opportunity for the development of individual interests and activities. Education which is concerned with the highest development of individual powers is also concerned to see that the individual use willingly those powers for the common good, and as he enlarges his common concerns and interests that he contribute to his own individual powers. The resource unit should help students to face facts, to decide and act in the light of all the consequences which flow from their acts. It should provide materials that will help students to think critically and socially about the values, organizations, and institutions of society.

4. THE RESOURCE UNIT SHOULD EXPLORE THE RESOURCES OF THE COMMUNITY THAT MAY BE UTILIZED IN DEVELOPING THE LEARNING UNIT. Students need to participate in the life and work of the community for several reasons. Participation in community affairs helps students gain a better understanding of community conditions and processes and of the world in which they live. The use of community resources by the school aids the students in feeling that they belong to the community and that they are a part of it. It is a means whereby students have an opportunity to share with others in making an important contribution to group welfare.

5. THE STUDENT ACTIVITIES THAT ARE SUGGESTED IN THE RESOURCE UNIT SHOULD BE BASED UPON SOUND PRINCIPLES OF LEARNING. The human organism acts as a whole in any situation; his physical, emotional, social, and mental development are interrelated and each influences the other. The unit cannot deal with one aspect of the student without touching all phases of his development. It must provide the kind of experiences that are likely to contribute to his all-round development. The experiences must be suited to his maturity level.

6. THE VARIOUS PROPOSALS INCLUDED IN THE RESOURCE UNIT SHOULD BE PRACTICABLE UNDER PREVAILING SCHOOL CONDITIONS. Supplies and materials are of direct value in solving the problems

of the unit. They should definitely meet the needs of the group using them. They should give the students an opportunity to do creative work and to understand all phases of social life. The selection and use of a variety of instructional materials have an important role in a functioning learning situation. If these materials cannot be provided, the resource unit is not likely to be successful.

7. THE RESOURCE UNIT SHOULD BE CONSTRUCTED IN SUCH A WAY AS TO STIMULATE PROFESSIONAL GROWTH IN DEMOCRATIC METHODS OF WORKING WITH STUDENTS. The teacher should be a discoverer and learner along with the students in all their work. He should be ready to make use of the suggestions made by the students, and at all times be sensitive to their interests and needs. He should continue to grow because of the varied situations that he meets in the classroom from day to day. His interests and understanding in all areas of living will be extended through work with his students, and by his association with people, books, and current literature.

8. A RESOURCE UNIT SHOULD HELP THE TEACHER TO PROVIDE EXPERIENCES FOR STUDENTS WHICH CALL FOR REFLECTIVE THINKING. The students should be given many opportunities to practice the process of arriving at individual and group decisions through free and open discussions. This includes freedom to act upon the decision thoughtfully arrived at, if such decision is in harmony with the welfare of the larger group. Reading materials should present all sides in controversial issues. To do otherwise is to lay the groundwork for indoctrination. It is only by this practice that skill in the use of the method of science can be developed.

9. A RESOURCE UNIT SHOULD BE BASED UPON A DEFINITE EDUCATIONAL PHILOSOPHY. Every school system and individual teacher has certain philosophies or beliefs which determine the attitudes and methods of work. The philosophy of the school and teacher will serve as guides to action and determine the activities and procedures within the resource unit.

10. A RESOURCE UNIT SHOULD BE ORGANIZED IN SUCH A WAY THAT IT CAN BE EASILY USED BY THE TEACHERS. It must have a clean-cut internal organization. The resource unit should not be too voluminous, nor should it attempt to cover so broad an area as to cause teachers to feel that it is too much for them to attempt. The language used in the resource unit should be comprehensible to the average teacher.

11. A RESOURCE UNIT SHOULD BE DEVELOPED BY SEVERAL TEACHERS REPRESENTING AS MANY SUBJECT FIELDS AS POSSIBLE. It is only in this way that the experience of other people and subject fields can be brought to bear upon the immediate concerns of the students. Subject-matter lines will be cut across and the necessary experiences and activities from various sources will prove meaningful to the students. Rigid departmentalization will be reduced.

12. A RESOURCE UNIT SHOULD CONTAIN MANY MORE SUGGESTIONS THAN ANY CLASS IS LIKELY TO USE. These numerous suggestions will enable the teacher and students to make better choice of materials that will more readily meet the needs and interests of the students. A resource unit might possibly contain materials and suggestions that would be helpful in building several learning units.

13. A RESOURCE UNIT SHOULD BE SUITED TO THE MATURITY OF THE STUDENTS. The student cannot grow through experiences which are beyond his maturity level. In fact, he may become maladjusted if the experiences are too advanced for him. For this reason a resource unit should be developed to cover a range of not more than three or four grades.

THE CONTENT OF RESOURCE UNITS

In the previous chapter it was shown that there is little agreement as to the particular form of a resource unit, or the steps that should be included. Naturally these questions will

have to be answered by the particular group in terms of the situation in which the resource unit is to be used. In this analysis, the following steps are used: (1) Philosophy, (2) Objectives, (3) Scope, (4) Suggestions for Use, (5) Activities, (6) Evaluation, (7) Teaching Materials and Aids, and (8) Leads to Other Units of Work.

PHILOSOPHY. The philosophy upon which the resource unit is built should be consistent with the philosophy of the school in those situations wherein a basic philosophy has been worked out and is well known to those who are making or using the resource unit. All of the learning activities afforded by the unit should reflect this basic philosophy. In situations in which such a philosophy has not been developed, the resource unit should contain a statement of the underlying philosophy of those who prepared it.

Since our schools, like those of any other society, reflect the basic ideals of the culture, the philosophy which gives direction to the school program should be based upon democratic ideals and values and their implications for the educational program. A convenient way of organizing the formulation of an educational philosophy might be to use the following categories: (1) the nature of our cultural ideals, (2) the nature of the individual, (3) the nature of learning, and (4) the purposes of the school in the light of the foregoing. The four schools of thought² which have influenced widely educational practices and procedures are the *Humanists*, led by Hutchins, Adler, Van Doren, and others; the *Social Evolutionists*, of which Morrison and Judd are representatives; the *Social Realists*, who follow the lead of Briggs; and the *Pragmatists*, or *Experimentalists*, of which school Dewey, Thayer, and Bode are leading exponents. Though these schools differ widely, they all claim to be within the framework of a democratic society. Hence, their concepts should be examined carefully by groups preparing resource units, or by schools that are re-examining their philosophies.

² This classification was first proposed by Joseph Justman, *Theories of Secondary Education in the United States*. New York, Bureau of Publications, Teachers College, Columbia University, 1942.

The question which might well be raised is: What purposes are we striving to attain in our educational program? If the school is to function effectively and the resource unit to be of the utmost value, a general policy must be adopted with reference to such issues facing secondary education as the following:

1. Shall secondary education be made available for all youth or for a selected few, *i.e.*, shall a high school adopt a curriculum which will meet the needs of all youths or just offer a classical course for those able to master it?
2. Shall secondary education be oriented in terms of the existing social order or shall it work for a refinement of the culture? *i.e.*, shall we educate for the *status quo* or for progress toward democratic American ideals?
3. Shall secondary schools indoctrinate for democracy or educate the student to make his own choice? *i.e.*, shall we train for blind following of cultural patterns or for the use of the scientific method in all phases of democratic life?
4. Shall the curriculum be interpreted as including only the organized subjects or as embracing all the learning activities sponsored by the schools? *i.e.*, shall the school be evaluated as an American democratic institution only in terms of formal subjects or shall all activities sponsored by the school be considered as contributing to the development of citizens of a democracy?
5. Shall the curriculum be based upon the immediate needs, problems, and interests of adolescents or upon the needs of adult life, *i.e.*, shall the curriculum be based upon the individualized needs of youth or upon the verbalized needs of adult pressure groups?

These issues are only a few of those which offer to the school challenges which must be met through the practices, procedures, and the learning situations which it sponsors.^a

^a See Chapter II for a more complete discussion of the problem of building a philosophy of education in a school. The references at the close of that chapter should be helpful to a group that is working on the development of a resource unit.

OBJECTIVES OF THE RESOURCE UNIT. The objectives of the resource unit should be consistent with the philosophy of the school or that which is adopted by the makers of the resource unit. A clear statement should be made of the basic ideals or values, the characteristics of personality, the attitudes, knowledges, habits, and skills to which the unit is expected to contribute. For example, if the unit is expected to contribute to *reflective thinking*, to develop certain *habits and skills*, such as the use of tools and skill in the use of certain techniques, these should be stated clearly. It is important that this section of the unit be developed with great care, because the suggested activities and the suggested techniques of evaluation should be based directly upon it.

SCOPE. The scope of the unit should be determined by two factors: (1) the nature of the unit itself; and, (2) the possible uses to which the unit will be put. The scope of the materials suggested should be adequate to meet the requirements of the two factors stated above, but it should not be so broad as to discourage the use of the unit or to confuse and bewilder the teachers who are to employ it. It should offer to the teachers and students many alternatives and possibilities for the selection of learning units.

In order to help the teacher to see more clearly the significance of the unit and the major issues and conflicts involved, it is desirable to present a clear statement of the general scope of the unit. This statement should include an impartial discussion of the issues and conflicts, the points of view of leading authorities, and an annotated bibliography that would help the teacher to gain a sense of security in dealing with the material. In case the unit cuts across a number of subjects or areas of experience, suggestions may be made as to the possible contributions which each may make to the development of the unit. The development of this section particularly calls for cooperative effort in terms of the fields of interest of the group.

USING THE RESOURCE UNIT. The resource unit should contain suggestions to the teachers who are to use it concerning

the possible ways the material might function in developing the various steps of a learning unit. A prescribed method of use would defeat the purpose of the resource unit, which is constructed to offer opportunities for teachers to use their own initiative and ideas in developing learning units with their students. In his cooperative planning with students, a teacher must be well prepared with many ideas in order to function effectively with the group. The following suggestions are based upon the conception of the learning unit as involving three interrelated phases: Initiatory Activities, Developmental Activities, and Culminating Activities.⁴

1. INITIATORY ACTIVITIES. The resource unit should give some suggestions for initiating the learning units which the teacher might develop to meet the needs in his specific situation. The approach to a learning unit should be a period of class orientation in which are carried on a series of vital activities that may extend over a period of several days. The purposes of these experiences are:

1. To extend and deepen the student's interest in relation to the unit of work.
2. To deepen and extend the student's background of experience related to the unit of work.
3. To help students develop and define their purposes in relation to the unit.
4. To lead students to see the possibilities in the unit in the way of activities which might be carried on or experiences in which they might engage for the realization of their purposes.

These initiatory experiences may include discussions, use of illustrative and reading materials, trips and excursions, or any other means of increasing the awareness of the need to pursue the problem further and to stimulate a desire to attack it.

2. THE DEVELOPMENTAL ACTIVITIES. The second phase of the development of a learning unit generally includes the activi-

⁴ See Chapter VIII.

ties, experiences, readings, and the like, which the teacher and students plan for the purpose of solving the problems or carrying out the purposes of the unit. The resource unit obviously should make a contribution to this phase. At this point in the development of the unit, an attempt should be made to point out alternative suggestions for using resource materials in carrying on group and individual learning experiences.

3. CULMINATING ACTIVITIES. In order to strengthen the learning experiences, culminating or evaluating activities should be planned. The type of culmination should depend upon the nature of the unit and the needs of the class. A successful culminating phase will give the students a sense of satisfaction and a feeling of control over the basic problems of the unit. It will also provide further opportunities for the student to express himself through art, speech, dramatics, writing, and creative work of various kinds.

If a unit of work has advanced successfully, evaluations have been continuously made by the teacher and students. Such evaluations may take the form of discussions, keeping records of progress, and taking various kinds of tests. The chief purpose of evaluation should be to assist and encourage the individual and class, to help them grow in ability to plan and evaluate their own work in terms of their objectives, and finally, to help them improve their techniques in order to overcome the difficulties encountered.

The culminating activities which summarize the work will aid the student to see his experiences in relation to the whole, to generalize his experiences, and to plan for additional learning activities.

SUGGESTED TYPES OF ACTIVITIES FOR STUDENTS. All of the possible pupil activities obviously cannot be included in a resource unit since many of them will grow out of student-teacher planning. However, the resource unit should suggest as many as possible. The following are *types* of activities which might be suggested:

1. **PLANNING OF UNITS OF LEARNING.** Students and teachers in cooperation should select and plan the units of learning to be developed, the methods and procedures to be used, as well as ways of evaluating their learning.

2. **SELECTING APPROPRIATE AUDIO-VISUAL MATERIAL.** Suggested student activities may be built around the use of recordings, radio programs, mounted pictures, post cards, photographs, slides, moving pictures, maps, charts, or specific collections (e.g., collections of stamps and the like) and exhibits.

3. **UTILIZING THE COMMUNITY.** No community is so meager in resources as not to provide some objects of interest from which youth may gain first-hand learning experiences. The streams, woods, and other aspects of the natural world provide opportunities for observation and information on natural resources; by trips and excursions to different sections of the community, different ways of living will be better understood; observations of local industries and political organizations will give the students insight into, and understanding of, political and economic problems.

These experiences should be supplemented by inviting social, civic, and industrial leaders, public officials, and other persons of the community to participate in classroom or assembly activities, or by providing opportunities for students to conduct interviews with them.

4. **WORKING JOINTLY WITH OTHER CLASSES TO CARRY OUT WORTHWHILE PROJECTS.** There are many experiences that can be shared with the whole school because of a common interest. In doing so, the importance of cooperation in achieving the common good will be realized and students will learn how to work together in achieving their purposes. The sponsoring of an assembly program might be illustrative of this type of activity.

5. **USING CREATIVE AND CONSTRUCTIVE ACTIVITIES.** The resource unit should suggest varied types of creative work and

constructive activities, such as oral and written reports, forums, debates, class plays, designing, painting, modeling, building, drawing, sewing, cooking, dramatizing, and dancing.

EVALUATION. The resource unit should provide suggestions for evaluating the learning-teaching process provided for in the learning unit. The concept, procedures, and instruments of evaluation will be based upon the philosophy of education in which the unit is built. Some conceive of evaluation as measurement of learning and are interested in end products only; others may bring evaluation into the planning of the unit in terms of evaluating growth in the light of certain objectives but also are interested in end products; still others are interested in the measurement of changed behavior but do not consider the methods used to gain that behavior; while others think of evaluation as a continuous process which is an integral part of the learning-teaching situation. In terms of one's concept of evaluation the methods, instruments, and use of the data collected will vary. If one accepts the latter viewpoint, evaluation will be thought of as being an attempt to get insights into the values which teachers and students hold in the educational program, and to secure evidence as to whether those values are being applied in their relationship to each other. Evaluation includes the idea of placing value upon things and studying situations in terms of those values. Therefore, it begins when planning for the unit begins, is continuous throughout the unit, and must be considered an integral part of the learning unit. The evaluative process commences with an examination of purposes in terms of the goals of a democratic society and in terms of the methods used in arriving at these purposes. It is a process of determining how well and to what extent these purposes are being realized, and in this way gives an opportunity for redirection or reformulation of the objectives continuously throughout the teaching process.

Purposes should be stated in operational terms, that is, in terms of student behaviors. In planning for the resource unit, methods and situations must be considered which will provide

opportunities for helping students to develop these behaviors. In addition, methods and techniques for evaluating progress toward the attainment of these goals should be included. The process of evaluating is one in which both teacher and students are concerned, and it must help them to perceive more clearly their values, goals, and purposes.

Thus, we see that evaluation is thought of as a process throughout the teaching-learning program, and not just as a series of instruments or techniques to be used at the end of the learning unit. Values are shown in the way that life problems are met, and evaluation is a process of clarifying these values. The resource unit should offer suggestions to the teacher for helping the student to see what his values are and the consequences to which they lead in terms of democratic living.

It follows that the suggestions for evaluation in a resource unit are of necessity general rather than specific ones. Techniques adapted to the particular situation will suggest themselves to the teacher. Yet suggestions for the use of some of the following techniques might be helpful.

1. PAPER-AND-PENCIL TESTS AND INSTRUMENTS. These would be used for the purpose of evaluating information, attitudes, skills, appreciations, beliefs, and ability to think critically. These include: essay, true-false, multiple choice, matching tests; application of principles, interpretation of data, and nature of proof tests; scales of belief, rating scales of various kinds, and instruments dealing with social acceptance.

2. ANECDOTAL RECORDS OF STUDENT BEHAVIOR. This technique is helpful in evaluating changes in student attitudes and appreciations. These may be gained through observations in and out of school and through conferences and conversations with students.

3. STUDENT RECORDS, DIARIES, AND OTHER RECORDS OF SELF-APPRAISAL. These may be used in appraising attitudes, interests, abilities, appreciations, and values.

4. AN ANALYSIS OF JOBS AND PROJECTS UNDERTAKEN BY STUDENTS. This involves a consideration of both the process and the product and exposes values, abilities, skills, standards, and methods of attack.

5. SCHOOL RECORDS. Those kept by teachers, administrators, and health officials may give information as to the growth of the student in terms of the purposes of the school.

6. AN ANALYSIS OF WRITTEN AND ORAL WORK. This may be valuable not only in getting at information learned but in getting at values, attitudes, interests, and appreciations.

7. REPORTS AND OBSERVATIONS BY PARENTS. Growth of the individual as revealed in the out-of-school situation may be gained through reports from parents and through conversation with them.

The amount of progress which an individual makes toward these goals varies with each individual and can be ascertained more objectively for some goals than for others. The data collected through measurements should be used individually and in terms of individual needs.

TEACHING MATERIALS AND AIDS. The resource unit should contain comprehensive lists of available materials, and the like, which the teacher might find helpful in an actual teaching situation. Obviously some of the material needed for a particular learning unit will have to be discovered at the time the unit is being taught. However, it is possible to anticipate many of the needs in advance of teaching. The following is a partial list of some of the types of material that should be included in the resource unit. The sources of these materials, their cost, and other pertinent data should be included in order to expedite the securing of them.

1. Books, pamphlets, and periodicals
2. Films, slides, pictures

3. Recordings
4. Radio programs, speeches, lectures
5. Maps and charts

LEADS TO OTHER UNITS. Obviously there are almost limitless possibilities in any resource unit for further exploration and study. In many cases, one unit will lead into many others. Teachers and students will discover these leads as they pursue the work of any given learning unit. For example, a study of housing might lead to an interest in community health, delinquency, population trends, government housing projects, and the like. These might be treated as related units. A unit on communication might lead into a number of other units such as the radio, the newspaper, public opinion, or language development.

Those who prepare a resource unit should be sensitive to the possibilities of extended experiences along the same line. It will be helpful to the teacher if these possibilities are listed and elaborated sufficiently to make them clearly understood.

SUMMARY

The steps of the procedure for building resource units, which have been outlined above, are not necessarily those which a particular teaching staff would use. The precise form taken by a unit would be decided by the group in terms of the specific situation. Neither is it intended that the steps be followed sequentially. In practice, after the group has reached some agreements concerning the basic philosophy and the purposes of the unit, the group would probably assign specific tasks to individuals or subgroups. For example, one such subgroup might assume responsibility for exploring the possibilities of utilizing audio-visual materials, another for assembling the bibliography, while a third might undertake the preparation of the section on the scope of the unit. A small committee might accept the task of editing the material. As these subgroups work and report back to the larger group, and discussion takes place, there is bound to be considerable modification of the original plans.

If a project of this sort is to be successful, certain conditions ought to prevail. A few of these will be mentioned and discussed briefly.

The first requisite is good leadership. This does not mean that the leader needs to be a specialist in the area in which the resource unit is to be built, but rather that he understand the democratic process of group thinking, and that he be able to stimulate individuals to think and work together. Second, the participants need to accept the responsibility willingly and zestfully. Coercion is not likely to result in a satisfactory product. Third, the participants must be freed from certain of their regular duties in order to afford adequate time. Curriculum reorganization is too important an enterprise to add to all of the other responsibilities of the teacher. Unless this fact is recognized by the administration and provided for in the teachers' schedules, it is futile to expect resource-unit building to be successful. Fourth, the group needs a satisfactory place in which to work, with plenty of room for books and materials which will be needed not only in building the unit, but also in using it later in the classroom. In addition, access to a good library is very essential if the group is to do more than a "scissors-and-paste" job. Fifth, the group should be provided with adequate stenographic assistance. Sixth, whenever possible the group should draw upon consultants who have special knowledge of the areas which are being utilized.

The chapter which follows is an illustration of a resource unit which was prepared by a group of teachers under the direction of the author. The plan outlined above was utilized as a starting point. It will be noted, that it does not follow precisely the steps proposed. It is believed, however, that the unit meets most of the proposed criteria.

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PROBLEMS OF LIVING IN THE AIR AGE: AN ILLUSTRATIVE RESOURCE UNIT

INTRODUCTION

THIS CHAPTER PRESENTS IN ABRIDGED FORM, A RESOURCE UNIT developed under the direction of the author by a group of teachers¹ in a Workshop in Curriculum Development at the Ohio State University, utilizing the suggestions for building resource units that are made in the previous chapter. It is designed to assist the teacher in a variety of situations. Since it cuts across the various fields of knowledge and deals with what are regarded as the common concerns of young people, it is well adapted for use in a core curriculum at the ninth or tenth-grade level. However, its use is by no means restricted to the core curriculum type of organization. It should also be valuable in the social science, or science area. As a matter of fact, any teacher who wishes to deal with problems of the air age should find within the unit many practical suggestions.²

The unit is presented here as an illustration of the possibility

¹ Edward H. Fournier, Marie C. Graham, Andrew Gulmi, Clyde G. Mankin, Ruth F. Lea, Lawrence E. Metcalf, Letty Mitchell, L. T. Robertson, Mary H. Steeds, Nora E. Young, Dorothy H. Miller. The group was made up of high-school and college teachers, representing the following fields: Science, Social Science, Home Economics, Business, Nursing, Guidance, and Administration.

² In the interest of brevity, the section of the unit entitled: "How to Use This Resource Unit," has been omitted. For an account of how one teacher used it, see Chapter XII, pp. 352-362.

of curriculum revision through the development of resource units. It illustrates the type of material which a group of high-school teachers of a given school might develop in a curriculum-making program. The teachers who developed this unit had had little or no previous experience in dealing with problems of the air age, and none in the techniques of unit development. They did, however, bring to the task a lively interest and a willingness to work hard.

Since the group had not worked together previously, it was necessary to devote a considerable amount of time to the development of a common philosophy. This accounts for the rather extensive space which is given to this section of the resource unit. Obviously once the teachers in a school had come to some common agreement regarding their philosophy and purposes, it would not be necessary to devote much time to this particular problem of resource-unit development.

The group worked as a unit, but through the process of group planning, allocated different tasks to individuals and sub-groups upon the basis of interest. All work was brought before the whole group for final approval. The author served as coordinator and took final responsibility for editing the material.

Advantages which this group had over a group of teachers in a particular school were the library facilities of the University, and the utilization of consultants in evaluation and teaching aids. These advantages, however, were offset by the disadvantage of not having in mind a particular school and community with which all members were familiar. It is the belief of the author that the teachers of a particular school, with good leadership and adequate resources, are capable of developing highly satisfactory resource units.

THE PHILOSOPHY UPON WHICH THIS RESOURCE UNIT IS BUILT

All teaching in our democratic society should be based upon a democratic philosophy of education which gives direction to the learning process. Within such a framework many variations

in beliefs and practices are possible. In order to clarify the point of view of the group preparing this unit, it seems wise to include a brief statement of philosophy. There is no thought of imposing this point of view on others who may use the material. Such would be contrary to the belief that each school should build its own philosophy. However, a sound interpretation of the various suggestions that are contained in this unit could hardly be made without an understanding of the values which the group hold.

OUR CHANGING CULTURE

The group believes that there is a need for the continuous re-examination of the philosophy of democratic living, since our social order is undergoing rapid change. An understanding of the major focal points at which changes are most significant helps to interpret the present meaning of democracy, and to elucidate the role of the school. Some of the areas of change are presented in the following section.

THE MEANING OF INDIVIDUALISM. Many significant changes have taken place in our country since its early days. These changes have been in all the areas which affect life and consequently have made changes in the ways in which people live. A small population, a large country, and an agricultural people meant land for everyone in these early days and with it the opportunity to provide a satisfactory way of living. The rise of cities with large populations, the disappearance of free land, and many technological changes in modes of production are changes which have occasioned the need for a reinterpretation of the doctrine of individualism. During these early days, as now, the country was built upon a declared belief in democracy. As changes have occurred, however, democracy has come to have a somewhat different meaning. When in the main, the liberties and the freedom of one man to direct his life as it best suited him in no way interfered with the liberties and the freedom of another, men desired of their government little interference

with their activities. When, however, the closing of factory doors, or the installation of new machinery caused many men to lose their opportunities to secure a livelihood, democratic procedures seemed to demand some control of private enterprise on the part of government.

CAPITAL AND LABOR RELATIONSHIPS. Here we see changes illustrated in the areas of economics and in government. These changes have not been understood in the same manner or received similarly by all people, and thus conflicts have arisen. From the changes mentioned above have come the conflict between capital and labor. The inability of men to find work or the doing of work at a wage which proved insufficient to provide a decent standard of living has led to a class structure and a clash between classes. Frequently these clashes involve whole industries. Differences in economic level have, also, created sharp conflicts between those who live in the white house on the hill and those who live across the tracks.

RACIAL AND MINORITY GROUP RELATIONSHIPS. Somewhat akin to this clash between classes is the clash between the white and Negro races. Though economic considerations enter here, other aspects are perhaps more significant. A group of people entered this country many years ago as slaves. During the second half of the Nineteenth Century they were guaranteed by the Constitution of the United States their freedom from servitude, the right of citizenship with its privileges of life, liberty, and property, and the right to vote. There are discrepancies, however, between these legal rights and the opportunities which society has made possible to the Negro. Some believe that he is not capable of assuming the responsibilities which these opportunities would demand. Others say that he is. And this has led to conflict between those who believe in equal rights for all regardless of race and those who believe in the superiority of the white race and special privileges for it. Similar clashes exist between the white race and other races, and between dominant and minority groups.

NATIONALISM AND INTERNATIONALISM. Recent changes in transportation and communication have brought all parts of the world closer together than at any previous time. With this has come the necessity for deciding upon some policy concerning our relationships with other nations. Some believe that our chief concern should be for America and the welfare of American citizens—that each nation should be responsible for its own well-being. Others believe that all peoples of the world have a responsibility toward each other and that by close cooperation the best interests of all may be served. Both of these seem to believe in some kind of world organization, but the conflict arises over the kind of organization which should be formed and the amount of national sovereignty which should be relinquished.

BASIS OF MORAL AND RELIGIOUS BELIEFS. Religious beliefs grounded in the culture of the time in which they originated and supported by the literature which explains them have exercised a real force in the lives of people. People have learned through these beliefs to accept as their guide for behavior the truths revealed to them by a Supreme Being. Scientific discoveries and the application of the scientific method to the solution of human problems have led to another belief on the part of many people. This is that the direction of greatest promise comes through the method of intelligently interpreting human experience in the light of the consequence to which it leads. And thus a clash arises between those who would look to an Authority outside of human experience for their guide to behavior and those who would constantly experiment to find the truths which work out in experience to be a promising guide for present and future action.

Closely akin to the religious conflict is the problem of moral standards. One group holds that moral behavior is determined by an appeal to fixed authority. Others hold that moral acts are evaluated in terms of human consequences. This conflict calls for a reinterpretation of such concepts as marriage, birth control, and the like.

THE MEANING OF DEMOCRACY

These many clashes in values and others as well have brought us to realize the need for again examining our philosophy. The resolution of these conflicts in a democratic society is only possible if we have a clear understanding of the meaning of democracy as a way of life. This means that democracy is given a much broader interpretation than when defined to mean only a form of government or of social organization. It becomes primarily a set of values which give direction to social living. The following ideals are held to be basic to democracy.

RESPECT FOR INDIVIDUALITY. Democracy, as here interpreted, holds that all individuals are unique and entitled to respect, and consequently provides for the optimal development of all in the different aspects of living: intellectual, moral, social, emotional, physical, cultural, vocational, and aesthetic.

COOPERATIVE LIVING. The optimal development of the individual cannot take place in isolation, consequently democracy recognizes the interdependence of individuals and holds that its organization should be such that it will further the good of all individuals. In this connection it recognizes that men possess increased opportunities for abundant living because of their working with other men, and because of the work of other men. Thus, it promotes continuous extension of cooperation, common interests, and purposes among individuals. It recognizes, also, that the privileges afforded to some men may lead to the lack of opportunity for others and thus believes that the privileges of one must be restricted when they interfere with the opportunities of another.

THE METHOD OF INTELLIGENCE. Democracy holds further that the optimal development of the individual can take place only when intelligence becomes the guide for behavior. It believes that the individual, through the use of his intelligence, can arrive at an adequate guide for his behavior. It be-

lieves that the truths which serve as guides for man's progress are ever changing and are derived from man's intelligent use of his experience; that they are not fixed and eternal and imposed from without. This has been defined as the method of intelligence and is considered the appropriate method for the meeting of all conflicts and the solving of all problems.

THE ROLE OF THE SCHOOL

What then should the American school try to do to further this democracy in our country? It, of course, must recognize that it is just one of the social institutions within the larger community, and that consequently it should utilize the community as a laboratory for the study of problems affecting the total community and should cooperate with other agencies in carrying out programs of community improvement. But it must, also, recognize that it has a unique place in American society and it should:

1. MAKE ITSELF A DEMOCRATIC PLACE IN WHICH STUDENTS AND TEACHING STAFF LIVE TOGETHER WITH DUE RESPECT AND CONSIDERATION FOR ALL MEMBERS OF THE GROUP. The schools provide an environment for students and teachers in which all may participate in the procedures of democratic living. Opportunities for wholesome growth in lifelike situations, in healthful and pleasant surroundings are most important to the optimal development of all. Teachers and students, in group activities, will share responsibilities and will work together cooperatively in planning and solving problems.

2. MAKING PROVISION FOR THE CLARIFICATION OF THE MEANING OF DEMOCRACY ON THE PART OF ALL STUDENTS. If democratic values are to serve as a basis for the choice of activities which make up living, these values must be understood. It is, therefore, the responsibility of the school to provide opportunities for their examination and clarification. This does not mean, however, that this will be done apart from activities

in living. The school should help the student to understand the democratic values involved in all the activities in which he engages.

3. ENCOURAGE AND RESPECT THE EXPRESSION OF BELIEFS AND OPINIONS ON THE PART OF ALL ITS STUDENTS. This means that students will be made to feel free to express their opinions even though they may not be in agreement with the teacher's views or those of their classmates. They will recognize that their beliefs and opinions will be given the same consideration that is given to the beliefs and opinions of others.

4. HELP STUDENTS TO CLARIFY AND PERHAPS RECONSTRUCT THEIR BELIEFS AND VALUES. This means that the school should encourage the discussion of all controversial issues that affect students. It means that students should examine the beliefs they hold in regard to these issues on two scores. (1) What are they based upon? Are they based on superstition, on lack of information, on the authority of someone else, on facts? What is their basis? And (2) to what consequences will they lead? If the student acts upon a certain belief, what will be the consequences of his behavior? When beliefs and values are subjected to such a test, the student will then have some basis for understanding his belief. He may adhere more strongly to it. He may decide to abandon it. At any rate, he will be able to give a more adequate reason for holding such a belief and he will have a better guide to behavior.

5. PROVIDE EXPERIENCES FOR GROUP THINKING ON COMMON PROBLEMS IN ORDER TO HELP STUDENTS UNDERSTAND THAT INDIVIDUAL CONCERNS AND SOCIAL CONCERNS ARE INTERDEPENDENT. The total societal pattern in any culture is composed of institutions contingent upon one another. Any change in one of these institutions in turn affects the larger societal structure. Experiences in a school that is operating on a democratic basis should provide group activities that will aid in the clarification of the societal structure and its institutions. Such experiences

will present freedom for individual expression, but at the same time will call for an examination by each person of the effect of his individual behavior and activities on others. This expressed consideration of others and constant examination of one's acts in the light of the further consequences to which they lead will in turn imply change in the institutions in society and finally in the culture itself.

6. PROVIDE FOR THE DEVELOPMENT OF THE WHOLE INDIVIDUAL.

The school recognizes that the intellectual, emotional, and physical aspects of personality are interrelated and that one cannot be separated from another. It, therefore, should provide experiences which emphasize the individual and his all-round development as a person rather than upon his intellectual training alone. This would mean that in all learning situations provision must be made for growth in each of these aspects—physical, emotional, and intellectual.

7. BASE ITS CURRICULUM UPON THE PROBLEMS, NEEDS, AND INTERESTS OF YOUTH.³ Education is a continuous process of growth of individuals through self-activity in relation to others, and occurs in each person as a result of his total experiences. All school situations should be expressed in terms of the purposeful activities of all, and these should be stimulated and directed according to the student's real problems, interests, needs, and capacities. Opportunities should be given to all so that they may purpose, plan, execute, and judge, each according to his many life needs and interests that, in turn, will be related to the needs and interests of the large group.

8. HELP THE STUDENT TO LEARN TO USE THE METHOD OF INTELLIGENCE AS A GUIDE TO HIS BEHAVIOR. This implies that the curriculum of the school will need to be based on activities which are of concern to young people, for thinking takes place

³ In developing this unit, the group made use of the general framework of "trends in adolescent development" which is set forth in Chapter III. That section of this resource unit is omitted for the sake of brevity.

when people are faced with problems which they need to solve, and which they are interested in solving.

Students will be encouraged to question their own beliefs, the assumptions which they often accept as facts, or the expressed beliefs of other people. Only in this manner will they learn to distinguish between fact and assumption.

Students will be taught to recognize the problems which face them, to arrive at fruitful hypotheses for solving these problems, to gather evidence which relates to them, to judge this evidence in terms of its usefulness in solving the problems, and to use it to reach conclusions that can be supported by facts.

The school will provide many and varied opportunities for students to do reflective thinking.

OBJECTIVES OF THE UNIT

The clarification of values, the discussion of controversial issues, the development of the whole individual, the recognition of the problems, needs, and interests of youth—these are the objectives of a democratic school in everything that it does. In addition to these general objectives, a unit on the air age can make its own unique contributions.

DEVELOPING CONSISTENT ATTITUDES. In the section on "scope" are mentioned some of the critical issues of an air age. These issues should not be handled as questions that simply call for facts and information. The development of attitudes of understanding with respect to these issues should be the major objective. These attitudes of understanding should be consistent with one another. Attitudes on one issue should not conflict with attitudes on another issue. Consistent attitudes which will guide the student's behavior should be developed with reference to all of the important issues. The following are examples of problems out of which issues are likely to develop:

1. What groups or agencies should control the production, distribution, and use of aircraft?
2. What is the probable effect of the extension of the use of the airplane upon international good will and understanding?

3. For what purpose should the airplane be used?
4. What international controls, if any, should be placed upon the use of air power?
5. What relationships, if any, should be established between the United States and other nations in the establishment of air routes and bases, and the maintenance of powerful military air forces?
6. To what extent has the airplane changed the problems of health from local and national concern to an international concern? Should Americans be very concerned with health and living conditions in other lands because of the airplane?

These are only a few of the problems with reference to which the student should form consistent attitudes. Many others are bound to result from teacher-student planning.

DEVELOPING INTELLECTUAL AND PRACTICAL INTERESTS. Besides aiding in the development of attitudes, the teacher will be interested in the growth of intellectual and practical interests.

1. Students should be encouraged to develop an intellectual interest in the airplane that will lead to independent reading, study, and exploration.
2. Students should understand and appreciate the significance of aviation in carrying on the work of the world, and of the possibilities of aviation as a profession.
3. The student should explore his own interests and aptitudes with a view to vocational orientation.
4. The student should understand and appreciate the many ways in which the airplane may be used both for the improvement of living and for the destruction of good living.

DEVELOPING ABILITIES. The development of abilities such as the following also lies within the province of this unit:

1. The ability to understand and apply scientific principles that are important in an air age.
2. The identification of various types of aircraft.

3. The drawing and reading of maps that are useful for the better understanding of life in the air age.

The above statement of the contributions of the unit is not intended to be complete. It is only suggestive of some of the values that may result from the exploration of the unit. Actually the contributions will vary with the group, and they should be determined through cooperative planning of teacher and students.

THE SCOPE OF THE UNIT

This section is designed to help the teacher to see the rich and varied possibilities of the unit, and to become thoroughly informed about the persistent problems of the air age. Naturally the scope of the learning unit will be determined by the organization of the curriculum. If the unit is to be used in a core program, the scope will be broad, and will cut across conventional subject-matter lines. If it is to be used in connection with a particular subject, the scope will be determined largely by the pertinence of the material to that subject. The length of time available for the study will also be a conditioning factor.

WAR AND PEACE IN AN AIR AGE. Young people, generally, fail to see the social significance of the airplane. They build model airplanes. They learn to identify various types of aircraft. They know that mountains and oceans, deserts, and swamps are no longer barriers to those who wish to transport goods. They see that the airplane is reducing distances. Do they know what all this means socially? Have they an understanding of the new problems that are created by the invention of new methods of transportation and communication? What are the consequences of holding in an air age values that were held in a more primitive age? The airplane can carry people to any spot on the earth. The people in the airplane may deliver atomic bombs or they may deliver food and medicine. The destination and the cargo of an airplane depends entirely on who controls it and what their philosophy is. The airplane is a product of the

scientific method, and may be used for good or evil purposes. Purposes are good or evil only in terms of a philosophy. The airplane, by reducing the physical distances between people with different philosophies, has increased the need to develop within the world common understandings based upon mutual interests.

Many people hope that the airplane will promote international understanding. It could very easily have the opposite effect if it becomes simply another weapon in the hands of national military establishments. In the immediate future, nations could effectively use the airplane for imperialistic purposes that would result in destruction such as we have never had. The airplane can carry paratroopers as well as exchange professors and peace delegations. We can have no assurance about the uses to which the airplane will be put until we have some assurance about the values that will be prized by those who fly.

How can any nation have security in an air age? In the past, nations have relied upon alliance, buffer states, and armaments. Will these continue to work in the future? Has the airplane increased or decreased the practicability of collective security? Will the United Nations Organization solve the security problem? There are those who say that the League of Nations failed because it lacked a police force and because the United States was not a member. Do these seem to you to be the real reasons for the League's failure to prevent World War II? Why didn't the League have a police force? Does the present United Nations Organization remedy the weaknesses of the League? Many people oppose a superstate. When does an international organization become a superstate? What powers should belong to the national state and what powers should belong to an international state in an air age? Should the atomic bomb, which is carried by aircraft, be controlled by an international body? If so, what effect would this have upon the concept of national sovereignty? The automobile and the railroad reduced the importance of state and local governments. Will the airplane reduce the importance of national governments? Are we likely to see statesmen in the future discussing "international rights" just as today statesmen discuss "states' rights"? It may be that

a redefinition of national sovereignty is required in an air age. Shall the Americans alone determine the rules for those who fly over America on route from Quebec to Mexico City? How can we have the greatest freedom of movement in the air without jeopardizing the national safety of anyone? There can be no freedom of the air without rules, but who shall make the rules? The airplane has made the world all of one piece physically but national differences insist upon many pieces. The many pieces may compete with one another for air supremacy or they may cooperate with one another in providing for the full and effective use of the airplane as an agent of social progress rather than as an agent of destruction.

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SCIENTIFIC CHALLENGE OF THE AIR AGE. One might reasonably raise the question: When did the air age begin? Has it yet arrived? Certainly the roots of the air age go back to the mythology of the ancient Greeks or are found in writings of the Bible which indicate that man has been "air minded," at least in his thinking, since the beginning of recorded history. The study of birds and the resulting attempts to imitate them have been a stimulus to scientific men. Like many other discoveries, the airplane is an evolvement from the work of many men, rather than the invention of one.

Three major events in history are of importance in this development. The Industrial Revolution, which led to the invention of the internal combustion engine, together with the accelerating effect of World Wars I and II have probably given the greatest impetus to aviation achievement. If the pace of development that obtained during World War I had been maintained after the armistice, who knows what World War II would have been like? With the even faster pace of this conflict, what would another war bring? Can intelligent thinking prevent aviation from becoming a monster to destroy the world? We do not place a high-powered rifle in the hands of a six-year-old, because we know he does not have the experience to use it intelligently. Yet science has placed in the hands of relatively inexperienced nations a weapon far more dangerous and versatile. Can nations, either individually or collectively, through the use of the method of intelligence, arrive at a code of ethics which would keep pace with, and forever check, this growing monster?

The challenges of the air age to learning are many and varied. From kite flying to model building and flying, the child is interested in the principles underlying flight. Bernoulli's theorem and Newton's laws of motion are readily understandable and easily demonstrated. The development of the student's natural curiosity regarding types of airplanes can lead to profitable studies of design, performance, and utility.

What are the physiological, geographical, and even astronomical limitations of flying? May we not reach other planets or will they reach us first? Why is the gasoline engine used in place of other types? How does it work? What kinds are there? What is the future of the rocket and of jet propulsion? Are Diesel engines suitable for aircraft?

We see many different pictures of the airplane of the future. That it will be swifter, safer, more streamlined and capable of carrying greater loads longer distances seems to be generally agreed. Whether or not there will be a "helicopter on every roof top" or a "flivver" plane for every family is an unanswerable question at the present time.

The stimulus to learning in fields allied to aviation is equally strong. The growing need for accurate weather information will bring an increased demand for meteorological knowledge and expert advice. The fellow who now belittles the predictions of his local weatherman, may soon lend an anxious ear to his admonitions. In the search for lighter and stronger materials, the engineer is likely to uncover alloys more versatile than duralumin or plastics, more durable than the bonded plywood which promises so much at this writing. Communications will also undergo marked transformation. The rapid advance in radar and television will need to be correlated with the safety and extension of the air arm.

The role of science in the air age needs no overplaying. Indeed, it is well to keep in mind that it is just one of the many aspects of the age which needs amplification and clarification. Although there is little doubt that science is responsible for much of the development in the air age, care should be taken that it is placed in its proper light with respect to the over-all picture.

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LIFE IN THE HOME, THE COMMUNITY, AND THE AIR AGE. The airplane of the postwar world may—like the radio, the automobile, and the moving picture—build a new world. Power such as was never dreamed of by man is abroad in the skies. Is it possible that rapid and novel changes due to rapid developments of the airplanes will change our way of life, our institutions, and our outlook upon the world? Will it be recognized that cooperative human effort is responsible for the future? Will there be instead a return to the "let George do it" attitude that followed World War I?

During the war the north-polar routes were used for many air missions. Will these Great Circle routes be practical for cargo-carrying planes? What is the nature of the present ship and air lanes in relation to the great trade centers? How is the situation different for the polar routes? How, if it is necessary, will provision be made for fuel in the Arctic? Will the "pay load" be the important factor or will nations be more concerned about prestige or their places "in the sun"? Is it possible that cargo and passenger air services might increase

the need for ships, trains, trucks, and buses as the automobile did? Will the plane help to solve the employment problem?

Who will have airplanes? Will the plane grow up over night from hundreds, to thousands, to millions as the automobile did? How well prepared for their jobs are men and women who operate planes now? How safe are these planes? What for the most part have plane makers and fliers been thinking about—records or safety? Will records or safety concern the average buyer of a plane? Will there need to be services for airplanes as there are for the automobile? What quality of workmanship will the owners and operators of planes want? If private planes become common, what changes will need to be made in the home-town landscape? Will the city or little town find it easy to adjust to the air age problems? What restrictions on the uses of private planes will be needed to protect all concerned? What qualifications might be wise and democratic in issuing licenses? What kinds of maps and what knowledge of weather will be needed by the civilian who flies?

What are some of the leisure-time activities that you find hard to crowd into your present day? Will the airplane make it possible to spend more time with the family at home? Is it likely that the plane may scatter the members of the family farther apart; or is it possible that it may help in building a better home life? Will the teen-age group expect to use the family helicopter? Will the government give more assistance with this home problem than it did with the family-car problem?

What possibilities does the airplane have for opening up new regions, surveying for new sources of minerals, and helping to find better uses of land and water?

Nothing has been predetermined or is definitely or finally fixed. "We are in an age of exploration; we don't know where we are going." Many predictions concerning the air age of the future are in the hopper. The potentialities for welfare loom big and the dangers involved are so great that authorities are skeptical concerning various features of the pattern for this age. Changes are taking place so rapidly that what is regarded as truth

at any given period may be outdated and lose its significance in a relatively short time.

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THE PROBLEM OF HEALTH IN AN AIR AGE. The problem of health in an air age has two important aspects—the effect on land-bound populations and the effect on aviators and other air travelers.

There was a time when health was largely an individual or family problem, but that was long ago. Today most nations are concerned with preventing the spread of disease within their borders, and with preventing any disease from entering their country from other parts of the world. Today, because of rapid air transportation, dangerous diseases in a faraway part of the world may be carried to the United States overnight. To prevent this, we have quarantine officers and sanitary inspectors standing guard at airports where planes from overseas come in. Planes are sprayed with chemicals lethal to mosquitoes and other insect vectors, and all passengers are given medical examinations. However, it is doubtful if these measures will prove to be adequate. Insect vectors, if great care is exercised may be prevented from alighting from the airplane alive, but a medical examination will be slight protection from the infected human beings who will be potentially capable of bringing into the country many

terrible diseases in the incubation stage. For example: An individual infected with bubonic plague travels by air from Cape Town, South Africa, to New York City, in approximately forty-eight hours, passes the medical examination at the airport, and boards a train for a small town in the Middle West. After his arrival home, he develops the symptoms of this dread disease. The local doctor is called in, but it takes him several days to make an accurate diagnosis, because bubonic plague is unheard of in that part of the country. By this time, several other cases have occurred. This is the possible beginning of a severe epidemic. The following are some suggestions for dealing with the problem.

1. Higher degree of immunization—here and abroad.
2. Improvement of public health (sanitary measures) in all parts of the world in contact with the United States by airplane.
3. More health education here and abroad—films, clinics, lectures, public health nursing, etc.
4. International efforts to eradicate disease at its source.
5. Study of how disease, and the conditions which cause disease, in the local community affect the health of others in the same community—and application of this knowledge to the world community.
6. Study of the costs of preventing disease, with the costs of curing disease, considering other factors besides the merely financial.
7. Larger appropriations of funds and talent for medical research.
8. Education and immunization of air travelers, especially air pilots.

How will the air age affect the health of those who travel by airplane and those who pilot planes? What other measures may be effectively used besides education and immunization? What dangers await these air travelers in their journeys through the atmosphere?

What effect will the air age have on the mental and emo-

tional health of the people? Will it bring widespread insecurity and fear which often lead to mental and emotional difficulties? Will it increase the number of conflicts already present in the social, economic, and religious fields? How shall we meet these problems?

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ACTIVITIES FOR GROUPS AND INDIVIDUALS

The following list of activities is designed to suggest to the teacher, the wide variety of possibilities for making the unit interesting and worthwhile. Most of them are addressed to the teacher rather than to the student. This does not mean that they are to be assigned in an arbitrary manner. Rather they should be discussed by the class to discover whether or not they meet the needs of the group. The resourceful teacher will think of many other types of activities, and the students will also have fruitful suggestions. Out of group planning should come an initial selection of activities which will be supplemented as the study progresses.

No attempt has been made to classify the activities as to the

appropriate sequence in the development of the unit. This is a matter that can best be worked out in the local situation. It will be noted that many of the activities pertain to such areas as physics, chemistry, geography, biology, history, English and health, though they are not so classified. The organization of the curriculum in the school in which the unit is to be used will determine the areas which should be drawn upon. The ideal is, of course, to utilize all areas that are pertinent to the problems that are being studied.

1. Select one or more daily or weekly papers and decide upon a suitable length of time over which to carry on some observations of one or more of the following:
(Note that a number of ideas may be incorporated in this activity.)
 - a. Military and naval actions in which combat planes played a major role.
 - b. Changes in airplanes and records made.
 - c. Weather conditions, noting particularly the frequency of changes from lows and highs. Show the duration of each low and high.

Keep an accurate record. There are various ways of doing this. Have the students make their own plans and submit them to the class for approval. Try to arouse the interest of the class and provide some permanent record for a selected part of the work that will prove helpful for future reference.

2. If you are familiar with planes and some of your class members want to become acquainted with them, provide flash cards, slides, or model planes and help students with their identification. Consult with other teachers if you find you need assistance.
3. The students might make a survey of their community to locate possible places for air strips or landing fields. The actual planning of the fields might be undertaken if feasible.
4. Plan a trip to an airport to study planes and air transporta-

tion. Use this trip as a basis for work in composition, spelling, community geography, arithmetic, etc.

5. Put a partly inflated balloon beneath a bell jar and demonstrate to the class the effect of reduced pressure. Have the pupils explain how this relates to flying.
6. The class might make a model of an airport showing hangars, runways, miniature planes, wind sock or tee, and other details learned from a visit to the port or from reading.
7. Place a ping-pong ball in the open part of a funnel. Blow hard through the funnel toward the open end. The ping-pong ball remains in the funnel. Why? What does this have to do with flying?
8. Find out where the principal cities are located in relation to the Great Circle Polar Route. Plot them on a globe and measure the distance saved in going from an important airport in the United States to any one of the cities located.
9. One or more students might plan a library activity, looking up the flights made by the Wright Brothers, Lindbergh, Wiley Post, Amelia Earhart, Wendell Willkie, and others.
10. Have students select on the globe two important points in the day's news. Stretch a string on the globe between these points. Compare the route taken by the string, which is the air-line distance between the points, with the route taken by steamships or railroads.
11. Have students report on the flights of the cargo plane, Mars. Discuss future possibilities of this type of plane. How will this new method of transporting commodities affect our way of living? Consider the possibility of the plane increasing the self-sufficiency of nations. Consider the possibility of countries developing "air" cities without ever having had the pangs of building canals, railroads, or good roads.
12. Have students clip weather predictions from the local newspaper for a period of a week or ten days, then mount them together with the students' own observations. Determine the accuracy of weather predictions.
13. Suggest that the students construct a model of an air-age

city to show how you think the city of the future will be built; how the furniture will be built; and how community life will be influenced. Visit a library or museum for details of construction. Contrast the home of the present with the home of the future. Does each serve its purpose?

14. The group might make a frieze showing the development of aviation.
15. Visit a local weather bureau station for the purpose of setting up an observation bureau for the school. Note its location. Note placement of the different measuring instruments. Estimate wind velocities by observing the movement of common things in the out of doors. Make a hygrometer to measure the moisture content or humidity of the air. This may be done by observing the temperatures of ordinary thermometers, one of which has moistened muslin about its base.
16. Sketch an outline of an airplane on the blackboard and have students name the various parts: wing, fuselage, elevators, rudder, etc.
17. Cut pictures of modern planes from old magazines (e.g., *Fortune*, Feb., 1941, and *Life*, Feb. 2, 1942) and have students learn to identify them.
18. Plan to have a pilot or navigator talk to the class about flying and the occupations connected with it.
19. Students might make drawings of cloud formations, indicating heights at which they are usually found and the relation that clouds have to flying.
20. Make a study of camouflage methods and then experiment with them on model planes in one of the following situations.
 - a. A desert
 - b. A dense tropical forest
 - c. A winter scene
 - (a) Snow present
 - (b) Leaves off trees but no snow
 - d. An urban region
 - e. A dairy farm

21. Miss X, the faculty sponsor of the school paper, is interested in the work of this class. She suggests that some of the students might write something on this unit which the "Acom" staff might like to use. This would have to be well written and interesting. If some of the students wish to do this, have them make a list of a number of subjects and place it on file for future reference. This project might result in a whole series of related articles on aviation.
22. A committee might draw up a list of items that ought to be taken into consideration in licensing private plane owners. Would the list also be appropriate for owners of automobiles?
23. A series of debates might be planned. Some of the following questions might be of interest to the group:
 - a. Resolved that the airplane should not be used for the bombing of cities.
 - b. Resolved that we should have government ownership of the aviation industry.
 - c. Resolved that the public high schools should teach students how to fly.
 - d. Resolved that we should have a uniform time belt for the whole United States.
 - e. Resolved that no nation should be permitted to have its own military air force.
24. Use a globe to demonstrate existing airplane travel routes around the world. Point out the possibility that tsetse flies could be carried to South America or North America and that infested rat fleas could be brought from the Orient. Recall that bubonic plague has long been endemic in the latter area.
25. Discover how lice are related to the transmission of typhus fever. Show how air travel might be responsible for rapid spreading of such a disease.
26. Discover what precautions are used to prevent infested mosquitoes from traveling from one country to another in airplanes. Discover what diseases are spread by mosquitoes.
27. Discover why muscular coordination is so important if one

- would become a successful airplane pilot. What types of muscular coordination would be of value in piloting a plane?
28. Discover why an efficient circulatory system is a requisite of the good pilot.
 29. Call together pupils interested in forming a model airplane club. Talk over organization plans. Consider who might be secured as a local sponsor and appoint a group to do the preliminary work of organization. Form a permanent club as soon as a sponsor has been elected. Decide on the type of activities to be carried on by the club. Investigate contest possibilities. Formulate simple rules to govern a local contest. Investigate the different types of model planes that may be built. Investigate various phases explaining how an airplane stays aloft. Plan and build some model planes and test them out. Exhibit work done at some public place to arouse community interest. Plan and carry out a model airplane field-day contest. Make plans for future activities.
 30. Motion picture films and slides depicting different phases of airplane development are very valuable in this unit. Send to the Ohio State University for a list of available visual aids (motion-picture films, glass slides). If a projector is not available, perhaps the class might initiate a project to raise money to secure one.
 31. How did the automobile change the behavior of people? You probably can secure a great deal of information on the subject from older people in the community, as well as from books and magazine articles. Consider what changes are likely to come about in the behavior of home folks and friends as a result of the airplane.
 32. Some of the students might write articles, poems, or dramatizations about the future of the airplane. Such topics as the following might appeal to certain students:
 - Our Community in 1960
 - The New Air-Age Home in 1960
 - The City of Tomorrow
 33. Survey the community to find people who have had experience in flying an airplane. Try to find someone who

owned and operated his own plane before the war. Interview one of these persons to get his ideas about owners of planes in the future; regulations expected; changes in community and home life.

34. Some of the students might want to make studies of different types of aircraft in order to determine the advantages or disadvantages of each type. This might lead to the preparation of models of the different types considered.
35. A pilot has a regular route into India; another one goes into Eritrea. What particular reasons do you see for these men being in good health? What precautions will the government need to make in order to protect the health of the crew, the passengers, and the people in the United States? Is it possible that the governments of India and Eritrea will need to take precautions too? Be ready to discuss your viewpoint on this subject with a fellow-worker before the class.
36. Survey the community to find possible future purchasers of airplanes. This could be carried out in several ways: house-to-house canvass with definite questions in mind; a questionnaire that might be handed to the man of the house; or by a study of possible purchasing power from observation. If the class should become interested in finding out the possibilities of the community as an air-age town, it might be possible for the class to work with some of the service clubs or the chamber of commerce. This survey might be the beginning of constructive thinking on the part of the entire community.
37. Plan to have a student interview someone in the community who is learning to fly in order to find out such things as the following:
 - a. The qualifications he or she needed in order to take instructions.
 - b. The cost of instructions.
 - c. The requirements necessary for obtaining a pilot's certificate.
 - d. How difficult learning to fly is.

- e. The subjects one should study in high school if he intends to take pilot training.

The prospective pilot might be invited to discuss these matters before the class.

38. Suggest individual or committee reports to the class on the various sections of Civil Aeronautics Bulletin No. 29, Pilots' Radio Manual, published by the Government Printing Office, Washington, D.C. Reports might be made on such topics as radio range stations, radio marker stations, the radio beam, and teletype service.
39. Students might consult a local travel-insurance company to find out the cost of air-travel insurance as compared with auto-travel insurance. In this connection they might also study the relative safety of air travel as compared with travel by automobile or by railway train.
40. How is a knowledge of the stars likely to be of value to the air navigator? Set up a project in star and planet identification.
41. Place a drop of ether or carbon tetrachloride on the wrist and fan it gently. Explain what happens and how it happens. How does this phenomenon relate to flight?
42. A great deal has been written about airplanes and flying. Articles, stories and poems about flying and fliers might be collected. It would be a good idea also to make a list of books about flying. This suggests the preparation of scrap-books and folders that might be of value to the class and to other classes studying the same unit.
43. Collect pictures of famous men and women fliers. Look for articles and poems about them.
44. Study the vocational possibilities in the field of aviation, and the qualifications for each type of position.
45. Study the evaluation of transportation.
46. On D Day, H Hour, there was no question in General Eisenhower's mind about landing at a certain part of the French coast. Is it possible that the airplane may have been an aid in deciding the landing place? Study the various uses of the plane on D Day.

47. Prepare radio scripts and playlets showing the work of a control tower.
48. Study and discuss the growth of the airport.
49. Make a tissue paper bag about two feet high and one foot in diameter. Hold it inverted over a Bunsen burner or alcohol flame until it becomes filled with hot air. Release it and allow it to rise. State the principles involved and their relation to the flight of aircraft.
50. Make a study of weather-predicting "gadgets" that are on the market. Find out the working principle of each of them. Compare these with weather devices used by the U. S. Army and the Navy, such as the radio, for obtaining weather information.
51. Set up a consumers' guide for the purchase of weather instruments. Which should be in the average home in the air age? What kind of a barometer do you advise Mr. Air-minded to install in his new home?
52. Make a study of clouds in order to know the clouds that give the most trouble in flight. Secure pictures from the U. S. Weather Bureau. The study of the formation of clouds, fog, rain, etc., can be facilitated by stirring ice and water in a shiny can with a thermometer until mist or dew forms on the outside of the can. The reading of the thermometer shows the dew point of the condensing point of the vapor.
53. A simple device for showing the explosive force of gasoline, the effect of compression on explosion and the function of the ignition system, may be made from a 12 in. glass tube, two stoppers, a Model T Ford coil, three dry cells and connecting wires. Wires are run through one stopper with the ends inside the tube about $\frac{1}{16}$ " apart. The other ends are connected in series with a switch, coil, and dry cells. A drop of gasoline is placed in the open end of the glass tube (which has been suitably mounted on a ring stand) and allowed to evaporate. Touching the switch will cause the gasoline to burn quietly. If, however, a second stopper is placed in the open end of the tube after adding the gaso-

line as before, an explosion of sufficient violence occurs to blow the stopper across the room.

54. Fill a tumbler with water and cover it with a card. Holding the card in place, invert the glass. Let go of the card. Instead of falling, the card remains in place and the water stays in the tumbler, showing that air is pressing on the card. This experiment shows that air presses upward as well as downward. What effect would this pressure have on a flying airplane?
55. Discuss how men learned to use things that facilitated travel.
56. Notice how bird feathers are adapted to flying. Is the airplane constructed on the same principle? Discuss.

EVALUATION OF OUTCOMES

GENERAL CONCEPT OF EVALUATION. Evaluation should be used as a means of determining the progress of students toward the goals for which students and teachers are working. The purpose of evaluation is to help students and teachers see where progress is being made and where it is not, and to point to reasons for progress or lack of progress. It is to lead to the changes which are needed to bring progress about. It may, in some cases, lead to change in the goals, themselves, when other goals are found to be more fruitful in the development of students. This means that evaluation should start with the beginning of any unit of study. The purposes, themselves, should be evaluated in terms of their contribution to student understanding, appreciations, special abilities, and the like. And evaluation should continue as study proceeds. In other words, purposes should constantly be evaluated and this should be a cooperative project.

It is important that the teacher know the progress students are making, for this knowledge should help him in his planning. It is also important that students know what progress they are making, so that they, too, may plan more effectively. And it is important that teacher and students have the same basic under-

standings, so that they may plan together. Thus, evaluation becomes a cooperative process.

EVALUATION TECHNIQUES. The following proposals for evaluation are purely suggestive. They are not intended to be all-inclusive. They are merely to point to some ways in which teachers and students may secure evidence of student growth toward desired goals. As the teacher and students determine goals and ways of working toward them, so will they determine appropriate methods of evaluating progress. The suggestions made here fall in two categories, the collecting of evidence through informal means and the discovering of evidence through formal testing. The teacher will think of many ways of securing evidence which are not mentioned here. And he will, no doubt, find appropriate means of recording progress. The assembling of materials written by students and the recording of observed behaviors in anecdotal record form are two suggestions worth noting.

1. GATHERING EVIDENCE BY INFORMAL MEANS. The teacher in many day-by-day contacts with students will find evidences of growth on their part. The statements they make, the questions they ask, the books, magazines, or articles they read, the projects they undertake, will all provide evidence. Their part in group work, the responsibilities they assume and their manner in dealing with other people will, also, give evidence. In the culminating stages of the unit, the class projects planned offer many opportunities for the teacher to judge the learnings which have taken place in the unit. The bits of evidence obtained here will be added to others to form a more complete picture of student achievement. Let us look at some of the evidence which teachers can obtain from observing their students at work and note some ways in which this evidence can be used in improving teaching techniques.

2. STUDENT INTERESTS. Students show their interests in the activities in which they engage in many ways. The student

who is really interested in a study of the air age will find much to read about the airplane and the new world which the airplane is making, for such material is easily available at the present time. What he reads in this connection, of his own free will, will somewhat indicate where his interest lies. He may read of social issues upon which the air age focuses especial attention. He may read material which concerns the mechanics of airplane building. He may read the stories which picture the adventurous life of the airplane pilot or hostess. It is possible that he may read nothing except materials suggested by the teacher. All of this is significant to the teacher who would help students further and broaden their interests.

Informal conversations of students may give the teacher much the same kind of information about interests that a knowledge of reading done may provide, and they are worth noting for this reason.

In like manner, projects undertaken by students may be observed for the interests they show. It may be noticed that some students choose many different things to do while some may choose to repeat the same thing over and over. An example here might be of map-making. The teacher might ask: Does this indicate an unusual interest in geography, or does it indicate an insecurity on the part of the child? Has he chosen map-making because in that he feels he can succeed? Each observation a teacher makes may lead him to a better understanding of the student with whom he works.

3. DEMOCRATIC VALUES. Many times during the study of such a unit as might develop from this resource unit, there will be opportunities for student participation in debates and discussions, for participation in group and individual projects, and for reporting on work done on these projects. We can get evidence from work of this kind that would help teachers or students or both to realize how worthwhile these experiences are and where changes might well be made. Such critical evaluation is an important aspect of the democratic process. Three illustrations follow:

4. GROUP PARTICIPATION. Tom may, during the first three weeks of discussion, make no contributions. He may listen attentively, but he has nothing to say. Then one day some student makes the remark that airplanes should not be allowed to fly from Canada across the United States to Mexico without the approval of the United States and Tom says, "I don't see why they shouldn't." This may not tell us a great deal about Tom's ability to think or his beliefs, but it gives us one bit of evidence that Tom is beginning to express his beliefs in class. If the teacher can recognize this small contribution as evidence of progress on the part of Tom in expressing his opinion in class, and can treat his remark in such a way that it will add to the group discussion, observation of Tom's work will probably reveal more contributions. Records of such statements may help both the teacher and Tom to plan for further progress on Tom's part.

5. THINKING. When Sam starts to construct some article such as a model of an airport, we can watch for the type of questions he asks. If he says, "How shall I start," and later says, "Is this all right?" and then "What shall I do next?" we are finding that Sam is doing little thinking but is depending on others to make decisions for him. A series of such questions would lead the teacher to look for methods which would stimulate Sam to determine purposes and make plans which could guide his work. Later questions such as the following one would show growth on the part of Sam. "These pieces of wood need to be put together, but the glue I am using won't hold them; what is wrong with the glue?" But still more progress is seen when Sam discovers the glue will not hold and proposes possible reasons. When he says, "Is this a type of glue which will not hold wood? Is the wood too porous for the one application of glue which I used? Did I let the glue dry long enough before I put the two pieces together?" we are beginning to see more thought on the part of Sam. When Sam asks himself and his teacher these questions, he can begin to plan for a better understanding of his own problem.

6. SOCIAL ATTITUDES AND APPRECIATIONS. Mary may speak with a great deal of feeling when she says, "We should have bombed the Japanese and the Germans off the face of the earth. The best use to which the airplane could have been put would have been just this." Can we imagine that a child may come to school with just such a belief as this one? Would we want to change it? That is hardly our job. But we would want Mary to base her belief on something more than prejudice. No doubt in our teaching various means will be used to help Mary understand why she holds such a belief, various materials will be made available to Mary for her to explore, questions will be raised to focus attention on a need for further information. If Mary arrives at the decision that she has made this statement because of the things which some Japanese and some Germans did during the war and that she should withhold judgment until she can learn more about German and Japanese people, would we not say Mary has shown progress in her ability to use the method of intelligence in solving problems?

If a student has gained much from a study of this unit, he will be able to state a number of generalizations drawn from his thinking about the important issues which are brought up for discussion. The teacher might then ask near the close of the unit that a list of these generalizations be written. From these he may ascertain a number of things. He may find out how consistent the student is in his beliefs. If he states one generalization which is somewhat contradictory to another, the teacher will have evidence that the student has not understood very well what underlies these beliefs. He may have evidence that he has not thought through the problem very well. He may also discover something of the values which the student holds—the things which he really cherishes. Thus, he may check these generalizations for consistency and for values.

If the student writes such a set of generalizations as these, he expresses one point of view:

- a. America should have more airplanes than any other country should have.

- b. The United States should make the rules for airplane travel.
- c. The United States should retain air bases in the Pacific.
- d. Our planes should be able to refuel at any air base in the world.

If he writes such a set of generalizations as these, he expresses a very different belief:

- a. There should be a world organization to regulate airplane travel.
- b. The airplane should be used as a means of bringing about closer cooperation between nations in world organization.
- c. An international air force should be organized for the purpose of enforcing peace throughout the world.

These two sets of generalizations indicate different beliefs and different values, but in each case they are consistent.

But should the student express such beliefs as the ones which follow he gives evidence of being somewhat confused. This does not mean he has done no thinking, but it does show that he has much further to go in analyzing situations for determining the grounds on which they stand.

- a. There should be a world organization to regulate airplane travel.
- b. The United States should make the rules which affect the travel of United States planes to any part of the world.

INFORMAL VALUE ANALYSIS. Students have a great many values which they reveal in a number of different ways. Some of them may be shown in the writing the student does. In fact, many will be. So the teacher might take the writing done by students, generalizations, descriptions, short articles, any writing done by the student, and analyze it for the kinds of statements made. He will find the student is expressing a number of ideas of which he approves, and a number of which he disapproves. If the teacher can assemble these in some sort of order he may find he has a very good picture of the values held

by the students. This will not be for the purpose of trying to change them, but it may well be for the purpose of helping the student to look critically at his own values. He may want to change them when he sees what they are.

FORMAL PROCEDURES FOR TESTING THE OUTCOMES OF THE UNIT. Until fairly recently attempts were not made to evaluate such things as attitudes, beliefs, values, interests, and thinking. They were thought to be too intangible for testing. And now a number of tests are available to those who would care to use them. These tests seek to gather evidence on many of the values expressed in the statement of the role of the school (page 295). The teacher may utilize these tests to indicate general progress toward the major objectives of education. He may also utilize the same techniques in preparing similar tests directly related to the unit on the air age.

1. TESTS FOR THINKING. So far no one test has been devised through which the whole thinking process can be evaluated. Tests have been devised, however, through which evidence can be secured on various aspects of the thinking process. These tests, along with other evidences, contribute to a better understanding of the student's ability to think.

a). *The interpretation of data test.*⁴ In this test various kinds of data are presented to students. They are in the form of charts, tables, graphs, and written statements. Concerning the data presented a number of conclusions are drawn. Some of the conclusions given are justified; some are not, and the student is asked to distinguish between them. Some students will arrive at conclusions with too few data. They may go beyond the data. They may read into statements ideas that are not there. The test is designed to help students recognize the mistakes they are making and learn to draw from data only those conclusions which can be justified.

⁴A more detailed description of this type of test is found in E. R. Smith and R. W. Tyler, *Appraising and Recording Student Progress*, pp. 38-74. Tests of this type can be secured from the American Education Fellowship, 289 Fourth Avenue, New York, also from the College of Education, Bureau of Educational Research, The Ohio State University, Columbus, Ohio.

b). *Nature of proof.* In the Nature of Proof test ⁵ a situation is described. A conclusion is drawn from the evidence that is given and a number of statements are made from which this conclusion might have been drawn. Some of these are facts, some are assumptions, and some are neither. When accepted as true, some of these statements support the conclusion, some refute it, and some are irrelevant to it. Some are true statements, some are false, some are neither. The ability to distinguish between these is an important part of the thinking process. And from this test some evidence can be secured which the teacher and student can use in recognizing the need for more careful distinctions between fact and assumption, true and false statements, and the like. It is important for students to learn to judge their own statements as well as those of others.

c). *Application of principles.* Two types of application of principles tests have been devised. One of these is the *Application of Principles of Science* which seeks to obtain information concerning the student's ability to apply knowledge gained in the study of science to the situations in life where these principles apply. This type of test might well be worked out for any body of subject matter which is based on principles that are applicable to many situations. The second test is the *Application of Principles of Logical Reasoning*. This is designed to help students determine their ability to distinguish "between conclusions which follow logically from given assumptions and conclusions which do not follow logically from the given assumptions." Four principles of logical reasoning are tested by this device.⁶ How well the student can apply each of these principles and to what extent he can reach logical conclusions in situations and justify the conclusions made will be indicated to some extent by the results of this test.

2. A SCALE OF BELIEFS. To secure some understanding of a student's attitude toward pertinent social issues, a number of statements have been made to which the student is asked to

⁵ *Ibid.*, pp. 126-154.

⁶ *Ibid.*, pp. 77-126.

react by stating that he is in agreement with, disagrees with, or is uncertain about the belief expressed. These beliefs express different points of view, and from them some estimate can be made of how conservative or liberal a student is. The test is made up of some two hundred statements, and is in two sections designed to be given at different times. In the second half of the test will be found an opposite point of view expressed for each statement made in the first section. And from this consistency of beliefs can be checked.⁷

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⁷ *Ibid.*, pp. 215-229.

⁸ S—Suitable for students

T—Suitable for teachers

1—Fair

2—Good

3—Excellent

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- Air Currents and How They Behave.* sd. 12 min. 16mm. Rent from the Bell and Howell Filmsound Library, 1801 Lanchmont Avenue, Chicago, Illinois.
- Airliner.* sd. 20 min. 16mm. Rent from the Bell and Howell Filmsound Library, 23 West 43rd Street, New York.

^o sd—sound; si—silent.

- An Airplane Trip.* sd. 11 min. 16mm. Rent from the Erpi Classroom Films, 1841 Broadway, New York.
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- Coast Guard Air Service.* sd. 9 min. 16mm. Bray Picture Corporation, 729 Seventh Avenue, New York.
- Coast to Coast by Plane.* si. 40 min. 16mm. Rent from University of California, 301 California Hall, Berkeley, California.
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Wandering Westward. sd. 25 min. 16mm. Loan, Australian News and Information Bureau, 610 Fifth Avenue, New York.

Weather Forecast. sd. 25 min. 16mm. Rent, Museum of Modern Art, 11 West 53rd Street, New York.

Winged Horizons. sd. 40 min. 16mm. Loan, Transcontinental and Western Air, Inc., 80 East 42nd Street, New York.

With Commander Byrd. si. 25 min. 16mm. Rent film from Commerce Company, 35 West 45th Street, New York.

FILM STRIPS

Order the film strips mentioned below from The Jam Handy Organization, 1775 Broadway, New York.

Pilot Training Series.

Kit I.

- A. Aircraft regulations—Need for centralized regulation.
- B. Men and Wings—History of flight and early attempts to the first successful flight.
- C. Radio and Control—Use of radio in controlling traffic.
- D. Today's Wings—Development of aviation from World War I to present time.
- E. The Pilot—The responsibility of the pilot, his rating, and limitations.
- F. Traffic—Right of way, minimum altitudes for flight, weather minimum.

Kit II.

- A. Air Masses—High and low pressure area, wind directions, precipitation.
- B. Air Ocean—The atmosphere.
- C. Airways Aids—Government navigational aids, beams, markers, etc.
- D. Air Pilotage—Face of the earth, maps, charts.
- E. Dead Reckoning—True Course measurement.
- F. Flight Instruments—Principles of operation.
- G. Pilot Problems—Practical examples of navigation problems.
- H. Weather—Clouds, storms, basic forecastings, weather maps, weather reports.

MAPS, CHARTS, AND GLOBES

Amateur Radio Map of the World. Order from American Radio Relay League, Inc., West Hartford, Connecticut. \$1.25.

Cloud Forms. Washington, D. C., Government Printing Office, U. S. Weather Bureau. Free.

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World Maps for the Air Age. Edited by G. T. Renner, New York, Rand, McNally and Company, 1942. 45" x 45".

Write the Air Transport Association, 1515 Massachusetts Avenue, N. W., Washington, D. C., for the latest edition of their free pamphlet, "Little Known Facts About the Scheduled Air Transport Industry." Contains some charts.

Write to "American Airlines, Inc." for maps of the world in an air age.

Write to American Geographical Society, 156th Street, Broadway, New York. A large folded map—"geography, resources, and population."

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PART IV

THE TEACHER AT WORK IN THE CLASSROOM

CURRICULUM REORGANIZATION THROUGH TEACHER-STUDENT PLANNING

ONE OF THE MOST CONTROVERSIAL ISSUES IN SECONDARY-SCHOOL curriculum reorganization centers around the extent to which students should participate in the planning of school activities. In the early stages of the development of the progressive movement, as a reaction against extreme imposition and regimentation, some educational theorists advocated programs which gave the student the central responsibility for determining how he should spend his time in school. Acting upon this theory, some schools undoubtedly went too far in interpreting freedom as mere absence of restraint. Often the theory was used by weak teachers as an excuse for their inability to exercise adequate school control. Traditional educators, who were not inclined to relinquish the arbitrary authority which they held, and which they believed was essential to inculcate discipline in students as an indispensable preparation for life, seized upon the weaknesses of the progressive movement, frequently exaggerating them. The clash between these two ideologies has never been fully reconciled. Today shortcomings of society are usually laid at the door of the school. To some, these shortcomings are due to the failure of the schools to develop social responsibility through continuous practice. To others, they are due to "soft pedagogy," to the failure of the school to force young people to

face without question the tasks determined by the needs of adult society.

COOPERATIVE PLANNING—AN ESSENTIAL OF DEMOCRATIC LIVING

Interpreters of the meaning of democracy almost unanimously agree that the survival of our democratic life depends upon the extent to which we, as a people, succeed in planning and working together for the common good. If we ever abandon the idea that the common man is capable of solving the complex problems that beset him, in close cooperation with his fellows, at that time democracy will languish and die. Those who know what they want will be quick to assume the responsibilities relinquished by the citizen, and the result is bound to be some kind of dictatorship, even though it may be "American style." That the people have no intention of surrendering their responsibility for cooperative planning was attested by the 1944 national elections. Even under the stress of the most devastating war in history, the American people took time out to study the basic issues and to register their convictions at the polls.

That the American people expect their government to assume leadership in national planning for the common good is clear. Social security, flood control, rural electrification are but a few illustrations of planning that have the unqualified approval of most people. The extension of such planning appears to be inevitable. If such planning is to be successful, it must be done by the people through their duly chosen representatives, otherwise it becomes a paternalistic scheme, which may easily become the basis of a totalitarian government. It is not enough that government be organized to promote the common good, it must continue to be responsible to the people. Community and regional planning is in its infancy. Community councils, sometimes brought into being as a result of the exigencies of war, have amply justified themselves as agencies for community improvement in the areas of health, recreation, education, and government. Such planning depends upon the intelligence and

will of the citizen to cooperate with his fellows in evolving and carrying into effect plans of action. Where but in the schools are people to develop an understanding of the significance of planning, and a zeal to promote the improvement of living in the immediate and wider community?

THE CONVENTIONAL HIGH SCHOOL LAGS

What opportunities does the student in the conventional high school have to develop the attitudes and understandings called for if he is to be prepared for democratic citizenship? The curriculum is set up in advance through narrow courses of study¹ or adopted text and workbooks which prescribe the ground to be covered, sometimes in the form of daily lessons. In these cases, cooperative curriculum planning is out of the question. Planning implies that decisions are to be made, but the important decisions have been made long before the student arrives upon the scene. In the extra-curricular field the situation is different. Here the students exercise considerable control over their clubs and organizations. Democratic planning has ample opportunity to function, in some cases with too little participation by teachers. These activities are correctly regarded as curricular, but the very fact that sharp differences in the extent of cooperative action exist between the classroom and the "activities period" prevents a complete program in which the student sees the entire life of the school as a unity, as an opportunity for democratic participation.

EXTENDING THE OPPORTUNITIES FOR PARTICIPATION

Any successful attempt to extend the program of student participation depends, of course, upon the attitude of the school. It needs to re-examine the values which it holds to be significant

¹ For an excellent discussion of this problem, see Edward Krug and Lester Anderson, eds. *Adapting Instruction in the Social Studies to Individual Differences*. Fifteenth Yearbook, The National Council for the Social Studies. Washington, National Council for the Social Studies, 1944, Chapter XV.

in education. If it regards the acquisition of subject matter as of supreme importance, then cooperative planning is justified on the ground that if the student participates to some extent in the determination of activities and procedures, he will be happier and learn more subject matter. Thus, cooperative planning becomes a device to carry out purposes that are usually external to the student's life. If, on the other hand, the school is thoroughly committed to the thesis that the most important values in education are intimately associated with the ability and zeal to work together for the common good, and that the best way to prepare for democratic citizenship is through practicing it in the day-to-day life of the school, then the way lies open to a genuine extension of the opportunities for cooperative teacher-student planning. But such a decision is not easy to make because it involves the subordination of the learning of fixed quotas of subject matter to learning the techniques of democratic action by practicing them. Subject-matter values have the sanction of long tradition, and the procedures for developing them are better understood by the academically trained teacher. Nevertheless, even in the conventional school much can be done if there is an appreciation of the value of cooperative action.

SOME PRINCIPLES INVOLVED IN TEACHER-STUDENT PLANNING

1. TEACHER-STUDENT PLANNING IS MORE SUCCESSFUL IN A SCHOOL WHICH HAS A VITAL PROGRAM OF ADMINISTRATOR-TEACHER PLANNING OF SCHOOL POLICY. Cooperative curriculum planning among teachers and students does not flourish in an atmosphere of autocracy. Where teachers have no voice in the determination of school policy, the formulation of school purposes, or the conditions under which they work, there is little likelihood that democracy in the classroom will be extensively practiced. In the first place, a school administrator who exercises autocratic controls would frown upon any widespread attempt on the part of the teachers to extend democracy to students, for this would be a glaring inconsistency which would soon threaten existing

administrative policy. In the second place, such administration is usually accompanied by a rigid curriculum organization which leaves few decisions to be made by teachers and students. In the third place, teachers who are forced to live in an autocratic atmosphere are loath to jeopardize their security by introducing cooperative classroom planning.

The situation is quite different when the administrator conceives his principal function to be the stimulation of teachers through the continuous use of democratic processes. In such a situation the teaching staff, under the guidance of the administrator, assumes responsibility for group decisions concerning all of the problems that vitally concern the school.² In several schools known to the author, the staff elects an executive committee of which the principal is *ex officio* chairman, which plans faculty meetings, appoints all committees, meets at stated times for a discussion of school problems which are ultimately brought before the faculty for final decision, unless the committee has been given "power to act" by the faculty. An interesting example of the work of such a committee is found in the Ohio State University school. The following quotation explains the plan:

At the request of the director, in the spring of 1939, an executive committee was elected by the faculty to give advice on administrative problems, while major matters of policy are discussed and decided by the whole faculty. The responsibilities of the executive committee have become very broad. Budget matters are referred to it, including maintenance allotments for the various areas and salaries of the staff. The committee also recommends concerning faculty rank. Twelve standing committees through which the faculty works are appointed by this central group. At the opening of school in October, each faculty member names the committees on which he prefers to serve. In the light of these preferences, assignments are made. It is recognized that an intelligent adult should know where he can serve most happily and effectively. Of interest in this connection

² For illustrations of democratic faculty participation, see the following: G. Robert Koopman, Alice Miel, and Paul Misner, *Democracy in School Administration*. New York, D. Appleton-Century Company, Inc., 1943. Arthur D. Hollingshead, *Guidance in Democratic Living*. New York, D. Appleton-Century Company, Inc., 1941.

is the fact that students in conducting their school affairs have worked out a similar procedure, choosing committees from volunteers for work on a particular project. Interested effort is thus the rule, and it is seldom necessary to compel either student or faculty member to assist with a given activity. In addition to directing faculty organization, the executive committee often makes recommendations concerning disciplinary problems, all school enterprises, or matters of policy referred to it by director or faculty.³

It is no accident that this school has become well known for its program of teacher-student planning,⁴ for it is merely the logical extension of democratic teacher participation in policy making.

Another interesting example of democratic administration is found in the William A. Bass Junior High School of Atlanta, Georgia.⁵ This high school is organized as nine "little" schools. Each of these units has a chairman who coordinates the work of his respective "school," and serves as a member of the principal's cabinet. "The function of the cabinet is that of policy-making, organization of school-wide activities, and the promotion of school welfare and solidarity." This cabinet meets with the principal at regular periods. The faculty and students of each "little" school are the curriculum-planning group. In this way administrative policy making and day-to-day school and classroom planning is a unitary process.

While all-school planning facilitates planning by individual teachers and students, it would be a mistake to assume that the individual teacher can do nothing apart from an organized group program, for the resourceful teacher will always find ways of rising above the general level. There is no denying the fact, however, that he will be confronted by grave difficulties and serious limitations unless he has the support of the administration.

³ *Thirty Schools Tell Their Story*. New York, Harper and Brothers, 1943, pp. 727-728. See also Harold Fawcett, "We Choose Our Director," *Educational Method*, XVIII, 402-407 (May, 1939).

⁴ For the students' view of this problem see: Class of 1938, University High School, The Ohio State University, *Were We Guinea Pigs?* New York, Henry Holt, 1938.

⁵ W. Joe Scott, et al. "Nine Schools Make One," *Bulletin of the National Association of Secondary-School Principals*, XXIX, 78-87 (April, 1945).

2. TEACHER-STUDENT PLANNING IS NOT A SUBSTITUTE FOR CURRICULUM PRE-PLANNING ON THE PART OF THE SCHOOL AND THE TEACHER.⁶ For many people, teacher-student planning has become the symbol of a "soft pedagogy" which permits students to do as they please. They hold that there is educational value in imposing disagreeable tasks upon students which is lost when teachers and students plan together. Unfortunately, in the early days of the progressive movement, some teachers interpreted the philosophy underlying democratic participation to mean that students should determine the activities which they wished to pursue without much, if any, guidance from the teacher. Other teachers became so zealous in promoting teacher-student planning that they tended to forget the setting in which it took place, and the part which they played in the planning process. When they wrote of their experiences, one often gained the impression, perhaps erroneously, that the students made all the decisions without the help of the teacher.

If we face the problem realistically, we must recognize, first of all, that the ideals, values, and purposes of the school are defined by the school's responsibility for promoting and refining democratic living. They are not a matter of whim or caprice. All that the school does must further these purposes, if it is to continue to retain the support of society. Second, it must be recognized that needs are not always recognized by students, and third, that the school owes an obligation to students to see to it that they grow optimally in all the aspects of living, in terms of their own potentialities. All this means that the school must have over-all purposes to which all members of the teaching staff hold allegiance; and that some general curriculum structure that will guarantee the development of the democratic personality must be developed and accepted by all. Problem areas or broad comprehensive units which give promise of providing richness of experience in personal and com-

⁶ See *Group Planning in Education*. 1945 Yearbook, Department of Supervision and Curriculum Development of the National Education Association. Washington, Department of Supervision and Curriculum Development, 1945, Chapter II. This volume contains many illustrations of successful teacher-student planning.

munity living may be set up without violating the creative process.

Schools will vary, of course, in the extent to which they will preplan broad curricular areas, but most educators will agree that this pre-planning is essential, and that it must not be left to "the inspiration of the moment." Students are quick to recognize the necessity for such pre-planning and they accept it as a necessary aspect of their education. It is within this framework that teacher-student planning takes root and develops. For example, the school may decide that students at a certain level require experiences related to the life of the community. The scope and precise nature of these experiences may well be left to teacher-student planning.

3. THE VALUES OF TEACHER-STUDENT PLANNING NEED TO BE WELL UNDERSTOOD AND ACCEPTED BY PARENTS AND THE GENERAL PUBLIC. Most parents received their education in rather formal situations. They are accustomed to think of education as so much ground to be covered in the form of daily assignments from textbooks. Many of them have had no opportunity to reorient themselves in terms of the school's function to provide training in democratic citizenship. Consequently, they are apt to think of the time spent by the teacher and students in initiating a unit of work as wasted. In the school they attended, the textbooks were on hand the first day of school and the teachers made their assignments. Study and recitation began immediately. In their present daily lives, they spend much time in defining and clarifying their problems, and in planning their solution, but they tend not to identify this process with what is done in school. In other words, there is a wide gap between school and life that cannot be bridged without help.

If parents have been called upon in the formulation and clarification of the school's purposes, and if procedures for realizing these purposes have been discussed with them, and perhaps demonstrated to them, attitudes are bound to change, for parents want their children to become self-reliant, socially sensitive, thinking individuals and they can readily be made to

comprehend that direct experience in the practice of these values is much more valuable than the acquisition of knowledge about them.

4. TEACHER-STUDENT PLANNING IS MORE SUCCESSFUL IN A SCHOOL THAT IS COMMITTED TO MEETING THE NEEDS OF STUDENTS, SOLVING THEIR PROBLEMS, AND EXTENDING AND ENRICHING THEIR INTERESTS. This principle needs little discussion at this point for it has been stressed earlier that in order to have vital teacher-student planning there must be something about which to plan. Regimentation in terms of daily quotas of subject matter to be learned leaves little or nothing to plan. It is a truism to say that human beings plan as they are confronted with problematic situations which call for novel adjustments. At other times, they act in routine ways which call for little or no change in behavior. It follows, then, that planning assumes real meaning in a group only when decisions have to be made in order to achieve ends that are understood and accepted. There is no question about the need for planning when a boy undertakes to build a radio, or when a group proposes to investigate the recreational facilities of the community. The need is not so apparent when the group is expected to cover the "next" chapter of the textbook.

5. TEACHER-STUDENT PLANNING IS MORE SUCCESSFUL IN A SCHOOL IN WHICH THE ENTIRE SCHOOL STAFF IS COMMITTED TO THE SAME GENERAL PHILOSOPHY AND PRACTICES IN THE CLASSROOM. This principle is a logical extension of No. 1 above, which held that teacher-student planning flourishes in an atmosphere of democratic organization and administration. At this point will be emphasized the value of concerted action in co-operative planning. Rather extended observation of school practices indicates that the greatest strides in cooperative planning have been made by teachers in core curriculums. One reason for this is the fact that curricular materials for such courses, fortunately, have not been standardized and organized logically. The result has been that teacher-student planning has been greatly encouraged in such courses, partly because of sheer necessity,

partly because such courses have been taught by teachers who are interested in improving their classroom procedures. Frequently, and this was particularly true of some of the Eight-Year Study schools, much emphasis was placed upon reorganization in the core area, leaving the elective courses, which for the most part are composed of organized subjects, somewhat out of the picture. Thus, we might find a situation in which teacher-student planning of units of work was the regular practice in the core, and teacher-made assignments, often on the daily basis, were customary in the other aspects of the curriculum. It is easy to see how this resulted in much confusion on the part of the student. For example, he would spend the first two periods of the day in the core class in which the group might devote the entire time in organizing itself into committees to explore various aspects of housing, or even in deciding what aspects of housing should be studied. At the close of this period, he would go to his science class in which he followed the directions in the laboratory manual for verifying Archimedes' principle, which he had already learned during the preceding class period. Naturally he would wonder about the difference, and would attempt to evaluate the contrasting procedures in terms of the values that he held at the time. No one would object to such an evaluation provided there existed good reasons for marked differences, but if such differences are merely the result of a failure of the school to operate in terms of a common philosophy, conclusions reached by the student are apt to be based upon false premises.

Are there fundamental and inherent differences in the various subjects or areas which call for rigid procedures in some, and flexible procedures in others? It is doubtful if a good case could be made for such differences. The differences are more likely to be found in the attitude of the teacher than in the nature of the area. Teacher-student planning can play a significant role in every aspect of the curriculum, provided teachers are sensitive to the values which are possible of realization. Obviously, these values will be realized more effectively if all members of the teaching staff work together.

6. SUCCESSFUL TEACHER-STUDENT PLANNING INVOLVES THE CONTINUOUS USE OF THE METHOD OF INTELLIGENCE, AND AN EVER-INCREASING APPRECIATION OF THE ROLE OF THAT METHOD IN SOLVING HUMAN PROBLEMS. Democracy involves the making of individual and group decisions upon the basis of the method of intelligence as opposed to the blind acceptance of conclusions imposed by others. This process involves the solution of problems by formulating hypotheses, examining all available data, the reaching of conclusions upon the basis of the data, and action upon the decisions that are reached. It is only when this same method is applied to the life of the school that teacher-student planning is successful.

In cases where the problem involves the selection and planning of units of work, the teacher and students working together will set up criteria or guiding principles which are to be followed as the planning proceeds. These criteria will, of course, vary from group to group and year to year. The following steps are typical of the procedure of the Ohio State University School:

1. Preliminary survey of pupils' background and needs.
2. Setting up of criteria for choice of a worthwhile group experience.
3. Examination of a range of worthwhile group experiences in the light of the criteria set up.
4. Cooperative choice of the best possible experience, with teacher responsibility for so directing the activity as to determine whether the choice fits into the needs of the pupil and the culture.
5. Caring for the rights of the minority.
6. Actual division of labor and working out of experience.
7. Revision of the group's working plans as needs dictate.
8. Evaluation of the group's work upon completion of the group experience or unit.
9. Transitions into other units by a technique similar to that mentioned above.⁷

A similar, though somewhat more elaborate plan has been used in the Denver, Colorado, high schools. The outline follows:

A. Preliminary planning

1. Teachers and pupils set up criteria for the selection of a problem.

⁷ *Thirty Schools Tell Their Story*. New York, Harper and Brothers, 1943, p. 739.

2. Teachers and pupils list a number of problems suggested by both and consider how well each meets the criteria set up.
 3. Teachers and pupils select the problem which seems most significant to the group and consider ways to provide for the interest of the minority.
 4. Teachers and pupils set up objectives which the class as a whole is seeking in the problem; both general and individual outcomes are indicated.
 5. The limits of the problem are set and the various aspects with which the class is to deal are chosen.
 6. Each individual decides upon his own share in the work and plans how he can best contribute to the outcome desired.
- B. Planning for materials to be used and for activities of the class, including the selection of pupil committees. . . .
- C. Period of research and study
1. Teachers and pupils attack the problem by means of a variety of activities, among which may be:
 - a. Reading in many kinds of sources . . .
 - b. Interviewing persons in the school itself and in the community.
 - c. Listening to the radio.
 - d. Taking field trips into the community.
 - e. Using visual aids in the form of slides, moving pictures, maps, charts, diagrams, models, photographs, cartoons, paintings, sculpture, crafts of all kinds, buildings, and the like.
 - f. Listening to speakers who are outstanding in their field.
 - g. Deliberating and studying by groups of pupils and by individuals in the class.
- D. Planning for reports on the information gained and the organization of conclusions reached for presentation to the class as a whole.
- E. Presentation of reports and conclusions before the group, in the form of panels, individual reports, a mural, an exhibit of graphs and charts, a series of drawings or paintings, figurines, a motion picture made by the class, and the like.
- F. Planning for the evaluation of the unit in the light of the objectives agreed upon in the beginning. (Such plans are made at the beginning of the unit as well as when the unit is nearing an end.)
- G. Evaluating the unit of work to discover how far the understandings and outcomes, originally set up by the group in the form of objectives, have been met both for the group and for individuals in the group.

H. A study by the group of possible leads from this unit into the next.⁸

It is evident from the above quotations that the process of planning is a continuous one which extends from the beginning of the unit to the close. It will be noted also that the process involves the use of the method of intelligence at all stages.

But it is not enough that students have continuous practice in the use of the method of intelligence in working with their fellows on common problems. In addition, they must come to see that what they are doing is the essence of democratic living as it is carried on outside of the school. This means that the process must be intellectualized by periodic reference to the way the procedures carried on in the classroom are applied to the solution of problems of community and national planning.

7. SUCCESSFUL TEACHER-STUDENT PLANNING BEGINS AT THE LEVEL AT WHICH THE GROUP IS CAPABLE OF WORKING, AND IS EXTENDED ONLY AS THE GROUP ACHIEVES NEW INSIGHTS AND INCREASED COMPETENCE IN THINKING AND WORKING TOGETHER. Living democratically is not a gift that is bestowed upon people, but rather is won by continuous struggle; by making and correcting mistakes; by the continuous re-examination and revision of procedures. In short, it is won by increasing capacity to utilize the method of intelligence, and increasing reliance upon that method of solving problems of common concern. In this way, the American people have gradually broadened the narrow concept of political democracy to include social and economic democracy. A people that has had no training in the functioning of democracy cannot be expected to change their modes of behavior suddenly. Similarly, a school that has exercised arbitrary controls cannot suddenly shift to complete reliance upon democratic processes, either in administrative policy making or in classroom planning.

In the beginning, then, the teacher must make some estimate of the ability of the group to plan cooperatively, in terms

⁸ *Ibid.*, pp. 179-181.

of background, attitudes, and maturity level. If the students have found security, as many of them do, in definite assignments of work to be done, at first they will not take kindly to a program of cooperative planning if it involves too much uncertainty as to procedures, and too much responsibility for the determination of outcomes. Students who are not aware of the purposes of teacher-student planning, the development of democratic values, are apt to consider it a waste of time. One such student remarked that she thought the class ought to have very long units, so that they would not have to stop working so frequently to plan new ones. Perhaps all that could be expected in a group unaccustomed to cooperative planning, and hence unskilled in its technique, would be to plan an occasional trip, or special class activity. From these simple beginnings, planning might be gradually extended to include supplementary projects of various sorts, and finally to the actual selection and planning of a unit of work.

It is the teacher's responsibility to see to it that cooperative planning is intelligent and educative. If it bogs down into interminable discussions, bitter conflict, and aimless wandering, it is deserving of all the criticism that has been heaped upon it by conventional educators. The wise teacher will recognize the points at which decisions should be made and will keep the group working constructively and effectively. If he cannot do this without resorting to coercion, it is probably evidence that he has made a mistake in judging the level at which the group can work cooperatively. In this case, he will have to start again at a lower level.

8. COOPERATIVE COMMUNITY PLANNING IN WHICH TEACHERS, STUDENTS AND ADULTS WORK TOGETHER, IS THE LOGICAL EXTENSION OF TEACHER-STUDENT PLANNING. As groups study the vital problems that affect them, it becomes increasingly difficult to confine such study to the classroom, for most of the problems of community life impinge directly upon young people. These problems must be attacked in cooperation with adults. When this happens, the line between school planning and community

planning is obliterated. The Parker High School provides interesting illustrations of this principle. A recent report states:

In Parker District, more and more, the community is becoming our school. As we try to meet the needs of the boys and girls in the school, we find ourselves turning to the community for help; and as we do so, we see numerous opportunities for helping our students by assisting them to become an important part of the community and of its efforts to improve. We have found in our community a wide field for study and practical application of the skills learned in the classroom—a field where most of our high-school classes frequently visit, study, and work. In addition, individuals whose experiences provide information concerning the community are often asked to the school to talk to classes, or are interviewed by students. As all of this activity has gone on, the people, too, have found more and more ways of using the schools, its facilities and personnel, pupils and teachers. We feel that this closer contact with people in the community has made possible more cooperative planning and working for school-community improvement; for improvement of homes; for better leisure time activities; and for other experiences that will help each student assume his proper role in community life.⁹

The following are just a few of the many projects which are common in the Parker School:

1. Community survey in cooperation with the community council.
2. Clean-up campaign.
3. Red Cross work.
4. Recreation program for younger children.
5. Junior employment bureau to locate part-time jobs for students.
6. Dramatic presentation in the community.
7. Round-table discussions at community group meetings.
8. Clerical assistance to community organizations.
9. Planting and canning projects.
10. Assistance to taxpayers in filling out income tax blanks.
11. Establishment of a "Christmas shoppers' nursery."
12. Operation of motion-picture projectors for community groups.¹⁰

Here again the school needs to start on the level at which community resources may be used effectively, keeping in mind

⁹ *The Parker High School Serves its People*. Southern Association Study. Greenville (S. C.), The Parker School District, 1942, p. 60.

¹⁰ For complete descriptions of these and many more projects, see *Ibid.*, pp. 67-78.

that curriculum planning is a professional job, and that final decisions must be made by the school staff with the approval, of course, of the board of education. But within this limitation, the school may work closely with appropriate community agencies for their mutual benefit.

SOME ILLUSTRATIONS OF TEACHER-STUDENT PLANNING

In order to illustrate the actual practices in teacher-student planning, the writer asked a number of classroom teachers to submit accounts of their work with students. No attempt was made to fit these reports into any prescribed pattern. Rather, the idea was to present narrative accounts of actual situations. The illustrations indicate clearly some of the problems which teachers face when they attempt to live democratically with their students.

PROBLEMS OF LIVING IN THE AIR AGE¹¹

This record of an eighth-grade class in general science begins with the exploration of the unit in order to develop and define individual and class purposes in relation to the air age.¹²

EXPLORING THE UNIT. Students examined books, magazine articles, and films in the first few days of their study. They talked with the teacher and with one another as they found something new, surprising, or disconcerting. Each day as the class met, new books and magazines were added to an already long reference list. Hardly a day passed but what some article from a daily newspaper was posted. Soon students were writing in their records the beliefs which they had formed, activities in which they wished to engage, and problems that they wanted to try to solve.

¹¹ Submitted by Mrs. Marie Graham, State Teachers College, Indiana, Pennsylvania. It is an abridged report of teacher-student planning in an eighth-grade general science class.

¹² See Chapter XI. Mrs. Graham was a member of the group that prepared the resource unit which is presented in condensed form.

The teacher worked with various individuals upon request or when it was evident that some student needed guidance. Some in need of guidance were finding it difficult to stay with a piece of work and were beginning to wander about aimlessly. These people picked up a magazine or a book only to lay it aside and pick up another. Questions were many and since much of the material was controversial in nature, students found themselves disagreeing with each other. Students were showing one another what to read when they found disagreements. You could frequently hear someone say, "You ought to read *Miracles Ahead* or *The Rest of Your Life*. Near the end of this period the teacher called the class together and they reviewed the progress of the work. Further plans were made and the teacher emphasized the importance of achievement on the part of each one in a class which attempted the democratic way of living.

All written work was collected and studied by the teacher. This work included bibliographies, notes on readings, plans, sketches, and beliefs. From the study of the students' written work and through a planning period with the class, it was decided that the material had been fairly well surveyed and that the members of the class were beginning to formulate opinions.

THE CLASS WANTED TO TALK ABOUT THE AIR AGE.

It was decided to spend some time discussing the ideas and the beliefs about which the students had become concerned in their study. These discussion periods were informal and quite free. Students for the most part carried forward the discussion. There was considerable disagreement among the class members and this led to a desire to investigate further. The value placed on this discussion period by the students is probably best told by quoting extracts from their written records.¹³

1. "Discussed beliefs, problems, etc. I didn't say much but every word spoken interested me. Some of these beliefs I don't quite agree with and others I like."

¹³ All student work is quoted without corrections in spelling, capitalization, or punctuation.

2. "It was very interesting to hear beliefs of other people."
3. "Class discussion. Participated. Worthwhile, wish we would do this often, think to a certain extent that civilians will fly to foreign lands."
4. "Listened to beliefs and formed a few beliefs of my own and I believe as I never believed before."
5. "I like this type of class so you can state your own belief."
6. "I believe that there are many problems connected with the air age about fuel, etc."
7. "I wish that you would have more classes like this; I like to fight in class."
8. "Listened to discussion. It gave me a chance to see what books I would like to read. Did get one. Was very interesting about cargo planes."

PLANNING FURTHER. The teacher studied the records at the close of this discussion period and upon beginning class the following day worked with the class to lay plans for the next few days. *The students felt they needed to read and formulate their own beliefs and get them stated.* Several days of reading and conference work followed. By the close of the second day, the records showed a great increase in the number of statements of beliefs, questions, and problems. From the students' records the teacher made a list of beliefs. Copies of these were distributed to the class. The following are illustrations of these beliefs:

1. "Very strict requirements would be asked before acquiring plane license."
2. "It is valuable to be able to talk about men like Jimmy Doolittle, Bert Balchen, and Claire Chennault."
3. "The route from U.S. to Western Europe will be important. New routes will be used. Transport planes will be used a great deal."

4. "Helicopters will never be used as much as our automobiles."
5. "Planes not to take the place of ships, autos, trains. There will be some airplanes for quick transportation but they will be too high priced for the average man."
6. "It will be possible to leave the earth for Mars, Venus, etc. We can be miles away from our work and reach it in one half hour. Life will be much modernized down to the mouse trap."
7. "I think this war has done one good thing by making the plane more popular. I think it will be easier to land planes since they have 'Quickys'."
8. "I believe that there will be a great increase in the production and improvement in the airplane after the war, but I don't think there will be any danger of the airplane diminishing boat or train transportation for at least the next 500 years. My reason for this belief is: After the war people will be looking for jobs rather than buying helicopters. War workers and service men will be marrying and using war bonds to buy homes. As soon as they get settled, the depression will hit them smack in the face and they will be right back where they started from. I think the depression will last at least 15 years. No country ever grew in leaps and bounds after a war. It seems to me that people sort of look to the future by nature. In a war people think of what a grand time they will have when it's all over, so they try to win it sooner. I don't believe helicopters will be used in the place of the car until the late 1970's."

Some attempt was made in the class to organize these problems and beliefs around central ideas. The class found it possible to group two or more of these beliefs under one heading. With the help of this guide and organization the discussion moved more rapidly and students were soon deciding upon certain parts for study. Within the next few days the class divided into groups and each group started to work on one of the phases of the air age. The groups met, planned, and worked. Sometimes the teacher worked with a group for almost an entire period. Again, it was possible to meet with several groups during the hour. The teacher helped in finding material, proposed plans, and listened to and considered the group plans. Plans were changed

by some groups during the first few days and various individuals changed from one group to another: *Then came a day when all were at work.* A description of the work of the groups follows:

GROUP ONE. Five girls decided to have a round-table discussion on *Freedom of the Air vs. The Closed Sky*. Some of the questions and problems set up by the group were:

1. Will smaller countries have as much freedom of the air as larger ones?
2. Will one country want to rule over the others?
3. Will the airfields of America on the smaller islands in the Pacific and the Mediterranean Sea be enlarged so that planes of the different nations can land easily?
4. Will there be as many accidents with the airplanes in the air as there are with trains, busses, cars, etc., on the land?
5. How will the boundaries of the sky affect the open sky for everyone?
6. International air laws.

This group held several discussions and prepared a bulletin board on which were articles, pictures, and diagrams that helped in understanding the meaning of *Freedom of the Air* and *Closed Sky*. Two reports were made by the group. Questions arose and the group failed at first to meet the challenges of the class. Later most of the questions were answered. After the group made its final report, the teacher proposed a plan for testing the class to find out how consistent they were in thinking.

GROUP TWO. A second group consisting of three girls decided to make a scrapbook to prove that, "The Air Age will be on us sooner than expected." Pictures, articles, and advertisements showing changes taking place, results of polls, possibilities of the air age, and the safety and ease of flying the new planes were clipped, mounted, and bound together in an attractive booklet entitled, *Air Age Soon*. This group prepared a program for the class, handed in an account of its work and each member presented a brief report of her findings. The discussion caused considerable controversy over the use of the helicopter.

GROUP THREE. Five boys selected the same belief, "Air Age Upon Us Sooner Than We Expcct." A notebook was made which contained the beliefs of the group and the special pieces of work done by each one. This was nicely typed and bound together in a very business-like appearing cover. This group was particularly interested in floating seadromes and a very careful diagram of the seadrome was included. The boys were very proud of their work and at no time thought it similar to that done by the committee of girls. In this group were two boys that find it very difficult to talk before the class. Neither of them said anything during the discussion.

GROUP FOUR. Two boys in this group are neighbors and great pals and always work together if they can. They selected *Air Routes of the Future* as their activity and used a large globe to show the principal cargo and passenger routes as they thought they would be in the future. Although there was excellent reading material on this problem concerning controversial issues, there was never any evidence that either boy had read the material or was concerned about these issues. Neither one of these boys has much interest in reading and this work would have necessitated considerable reading. Most of the findings were from various air maps which could be copied. One of the boys is particularly interested in art work and takes every opportunity to do his work in map form. The teacher spent a great deal of time helping these boys to locate materials and to set up a plan for work. But the boys did little except to show the globe with the routes and cities designated. No reasons for the changes in routes were given.

GROUP FIVE. A group of five girls started with the following ideas: that everyone's life will be completely changed by the airplane; that the air age will not come unexpectedly because practically every publication contains predictions about the coming change; that houses are going to be more important than any other thing in the coming world because you live in a home.

This group decided to make a bulletin board of air-age

homes. They did no reading even after several conferences in which certain references were suggested. They clipped, pasted, posted, and made an attractive bulletin board. They had what they thought were air-age houses for jungle regions, hot desert places, lands of long, cold winters and their own home region. What they really had were some very attractive modern homes that have been on the market for a number of years. Criticism of the bulletin-board work brought disappointment to the group, but during the next few days the bulletin board was cleared. The group finally began reading and ended with pictures of a few homes (not too good but the best that they could find). Articles on neighborhood building, and postwar homes were included. This group gave the school an opportunity to select its favorite home. Considerable interest was aroused in this and 95 out of 168 students voted in the contest.

The attitude of the group changed somewhat. Instead of being satisfied with what they found concerning the air-age home and neighborhood, they were concerned about getting ideas from other sources. One letter was written to an architectural firm in New York City and the answer received created considerable excitement.

GROUP SIX. Another group of six girls based their work on the following statement: "Helicopters, ultra-streamlined motor cars, household conveniences akin to magic . . . may be desirable . . . many of them are doubtless attainable . . . but the pursuit of that happiness which is guaranteed to every citizen by our constitution rests on simpler, more fundamental things."

This group was convinced that the air-age with a helicopter on every roof top would never come and they endeavored to prove that the plane would not take the place of the train, the ship, or the automobile. The group read all too little. The members depended largely on pictures from advertisements. The group reported its findings to the class. No sooner had the second speaker held up a picture saying as she did so, "This is what the train of 1960 will look like," than hands were

waving. In the excitement, someone burst forth with, "Why, we have trains like that now!" For a brief time several speakers tried to hold the floor. Amy tried to cover up her mistake by saying that she was talking about the inside of the train. The group would not be put aside, however, and someone said, "what do you mean inside?" This was too much for Amy and in tears she took her seat saying: "They might have let me finish!" The group tried hard to support its point of view but the class was pretty thoroughly disgusted. Fortunately, the class period was over soon. Some students were feeling sorry for Amy. The teacher advised the group to be sure to have good authority for what was said and advised them to do some reading before presenting more of their work.

A few days later when this group began again Amy's report, very much changed, was given by the chairman. The whole group had quite an antagonistic attitude, but the class asked questions and pointed out their inconsistencies. This group saw improvements coming in everything but the airplane, but why they saw no improvement in the plane was never clearly explained.

For the final presentation, the chairman read the following letter: ¹⁴

Dear Barbara:

In your last letter you asked me what I was doing in General Science. Well, we are studying about the future. I am working in a group that does not believe there will ever be an air age. I know we're living in an air age now but I mean a complete air age in which every one owns an airplane like they own a car today. We (my group, Louise, Joanne, Caroline, Nancy, Audrey—you have heard me talk about them before) believe the car will always be important and will never be replaced. Have you ever read the Book, *Maricals Ahead*,—well, it has given us the information on the car that makes us believe the car will always be important. The train another important form of transportation will be important. The trains will be very

¹⁴ This letter was in rough form and was not corrected or copied. It was probably written hurriedly with the idea of having something different to present. The teacher omitted one statement at the close which was of the stereotyped kind.

modern but they will not be used half as much as they are today. By the way, we must have proof for each statement and we got the proof about the train from the article, "*The World At Your Feet.*" The plane will be used for cargo much more extensively than for passengers. *Wings After* backs up this statement. We also believe the home will be very, very modern like a dream house, but will take some time for this dream to become a reality just looking at the plans for future homes. *Better House and Gardens* stands as proof for these statements. Now, I have told you what we believe next comes what we don't believe. We do not believe that the average man is going to own an air plane, because the plane is so high priced and are not to simple to run. If, and I say if, we do get into an age such as this people will be moving farther apart citys will become less populated. It has taken years and years to get people living with others that would practly tear down what it has taken years to build up.

Love,
MILDRED

When the class disagreed with statements or asked questions, the chairman was willing to listen to her classmates. From the letter it is quite evident that some authorities had been consulted.

GROUP SEVEN. Originally this group consisted of twelve boys who were interested in getting away from this planet and making a trip to Mars, Venus, or the Moon. They planned to write a story about a trip to the moon and a play entitled, *A Flight to Mars*. The story was completed but had little scientific value. It was this story and the questions the group asked that made the teacher search around for some authoritative work on the space ship, a rocket to the moon, and a terminal in space. Willy Ley's new book, *Rockets*, was invaluable. Students, teachers, and parents read it and became absorbed in the possibilities.

Before this group really got started, several dropped out and went to work on their own. The group finally consisted of nine boys. When this group reported, all had planned to give some part of the report. It happened, however, that the questions came so fast and covered such a wide area that just one boy

managed to make a report. The other reports were absorbed in answering the questions asked by the class.

Some of the questions which the group tried to answer were:

1. How big will a rocket ship have to be to get away from the Earth?
2. How long will it take to reach Mars?
3. How will the Rocket ship return to Earth?
4. What kind of fuel will be used?
5. What are some of the things that a Terminal in Space will make possible?

Many members of the class doubted that a rocket to the moon was a possibility and when it came to thinking of a terminal in space, that was sheer nonsense. But the group of boys with the exception of a few believed that space ships, moon rockets, and terminals in space are some of the miracles of the future. Some thought they would like to make the first trip out into space.

GROUPS EIGHT AND NINE. Two other groups, one consisting of three boys, and the other of two boys, were interested in: *How a Plane Flies*, *Making of Model Planes*, and *Plane Identification*. Two of the boys worked out a good report on: *Ways in Which the Airplane Will Change Everybody's Life After the War*. These boys made a German Robot Plane, the V-1, a Helicopter, the Flying Fortress B-17 E, Seaplane (Kingfisher), American Scout Bomber, and Mitsubishi 98—a Japanese fighter.

A second boy made three models—a biplane which he called "the plane of the past," and a monoplane which he called "the plane of today," the third he called "the plane of the future."

Another boy made sketches showing the four basic flying motions, flying regulations, the Luboldscopier, and others.

EVALUATION OF STUDENT AND CLASS ACHIEVEMENT. From the first day of the unit study, the teacher was concerned with how to help individuals improve, how to help groups improve, and how to improve the teacher's share in the work. The class was large and it was seldom possible for the teacher

to record much during the class period except when students were discussing their work. Conferences with individuals and groups were almost always in process and the written work was thoroughly studied. The evaluation of the written work was time-consuming, but students and teacher alike learned how to work together better and also learned what changes each needed to make from a careful consideration on the part of both.

In completing the unit, there was some discussion of giving an assembly program. The class, however, had been busy with the Presidential Election Assembly and some were involved in preparing a play for an assembly. Together the class and the teacher decided it was best to begin planning a new unit of work.

A CORE GROUP SELECTS A UNIT OF WORK ¹⁵

Thirty-four seventh-grade boys and girls, members of a two-hour core class, had just returned to school from their Christmas vacation. These twenty boys and fourteen girls were preparing to select a new unit of study, planning cooperatively with one another and with their teacher the work they would be doing. The class had had one previous experience together of selecting and planning their unit. At that time, it was evident that the girls tended to respond submissively to the desires and judgments of the boys. It was also evident that there was one small group of three boys who dominated the group's planning situations.

With these things in mind, the teacher opened the initial planning sessions. These sessions never lasted more than one hour of the two-hour class period. Approximately five hours were spent in selecting and organizing the new unit.

STANDARDS. The teacher's opening statements included the necessity of all participating in the planning work with the frank recognition that the girls had not been too active when the first unit was selected. This unit had been, "The Use of

¹⁵ Submitted by Hugh Laughlin, The Ohio State University School, Columbus, Ohio.

Power in Modern Civilization." The question was raised by the teacher as to whether or not this inactivity on the part of the girls during selection and planning periods had in any way affected the success of the unit. Discussion resulted in the conclusion that the girls' lack of interest "slowed down" the whole endeavor. It was thought that the interest was lacking among the girls because they had not entered into the selection of the unit. As the result of this discussion it was agreed that it would be necessary to keep in mind the selection of a unit broad enough to include the interests of all the students in the class. It was also agreed that all students should enter into the discussions so it would be possible to determine whether or not this standard was being met.

With further discussion other standards were suggested by the students and the following list was formulated:

1. The new unit should be broad enough to include the interests of all the students in the class.
 2. This unit should be about something that we agree is important to study. (Agreement was defined as majority opinion and there was a willingness to accept the decision of the majority.)
 3. The unit should provide opportunities for project work.
 4. The unit should be one that suggests interesting things about which to write.
 5. The unit should be one that will take almost the rest of the school year.
 6. The unit should be about something "up-to-date" and important today.
 7. The new unit should be different from, that is, a contrast to, the last unit studied.
- To this list the teacher added,
8. We should check with the librarian to be sure that there are adequate materials available for the study of the unit.

Two items were suggested but eliminated as standards by the class.

1. The unit should provide for trips. (It was decided that the trips were important if they contributed to the study of the unit, but the unit should not be selected in terms of "How many trips will it provide?" Had the class not agreed, the standard would

have been listed and the group would have been permitted to struggle with this limiting factor of unit selection.)

2. The unit should not be something we have studied in the last two years. (The suggesting and eliminating of this criterion, while not recognized by the teacher at the time, was to be the basis for some very interesting individual political work at a later period in the planning. It was at this point that the three boys, who were the vocal leaders of the class, made their first bid to dominate the selection of the unit.)

CHOOSING THE UNIT. When the standards for selection had been established and agreed on, the choice of a unit was thrown open for suggestions from the floor. This was to be done in terms of individual interests, with the assumption that the individual had checked his suggestion against the standards. The following were listed:

1. Astronomy: A Study of the Heavenly Bodies
2. Our Houses After the War
3. The Part the Farmer Plays in the War
4. Russia
5. World Battlefronts Where Our Soldiers are Fighting
6. Our School
7. Postwar Aviation

Many suggestions were made that were immediately ruled out by the class because they obviously did not qualify according to the standards. In this group of suggestions were such things as Collecting Stamps, Engines and Motors, and Historical and Present-Day Implements of War.

The list of suggested topics was finished at the end of one of the class periods and a day elapsed before the class resumed work on the unit selection. The teacher noticed that most of the contributions in the ensuing discussion came from the three boys who were interested in the unit on astronomy. The rest of the class remained quiet and even on direct questioning were hesitant in stating their interests or views. As the group continued the work of checking the suggestions against the standards, it was clear that the situation was one of "all good" for astronomy and "all bad" for the other suggestions. The teacher,

becoming aware of the pressures that had been put on behind the scenes, stopped the class work to ask: "How many think it best to study astronomy?" Over half the class responded to the effect that they thought astronomy best. The teacher's next question was, "You know that to be your judgment even before we have finished checking through the whole list?" The nods of the students were in the affirmative. "How did you come to that decision?" No response.

What had happened was certainly not desirable but on the other hand, not too unusual in the unit selection experience. The entire group had been influenced by the boys who held leadership positions in the class. As the situation was explored more fully, it became evident that it did not matter to the voting students that astronomy was not strong when checked against the standards set by the class. Nor was the study of astronomy a real desire of the larger portion of the class that had responded in the affirmative to the teacher's first question. The class readily agreed that the selection had been made on the playing field, at the lunch table, and in the shower room by the vocal minority of three boys.

Attention was given to the three boys who had forsaken most of the standards agreed on by the class and had made their choice in terms of personal desire and interest. It was suggested to the other members of the class that they had allowed themselves to be placed in the position of having no substantiated choice but had had their choice made for them by the "politicians." The class agreed that everyone's action had been hasty and possibly unintelligent. The teacher then ruled that astronomy would have to be removed from the list of possible units explaining that if it were left and selected, it would never be known whether or not the choice had been an intelligent one. To all but a few, this action seemed fair and justified. All three of the leaders agreed that it was proper.

As the work continued, all of the suggestions, except "Russia" and "World Battlefronts Where American Boys Are Fighting," were eliminated as not meeting some of the standards. "Our Houses After the War" and "Postwar Aviation" were

discarded after advising with the librarian. "The Part the Farmer Plays in the War" met every standard except the one which suggests that the unit should be broad enough to include the interests of all. The "Our School" suggestion was eliminated because some felt it not "up-to-date" and most felt that it was not big enough for the length of time the class had in mind for the study. The remaining suggestions, "Russia" and "World Battlefronts Where Our Boys Are Fighting" were expanded by making first-step organizations, and the decision was finally made by mutual agreement to change the title of the "Battlefronts" suggestion to "World Battlefronts Where the Soldiers of the United Nations are Fighting," which would include the "Russia" suggestion. This was agreed and the decision was made. The unit had been selected.

After the selection had been made, one of the three boys who had been a leader in the "astronomy" suggestion mentioned that as a result of their experience the class had made a choice that was entirely theirs. He seemed very proud of this class accomplishment. The girls called attention to the fact that they had been in on all discussions and they were very proud of themselves for their accomplishment. The teacher was aware that the class went forward in its work with a feeling of unity which had not been evident before. This unit resulted from working together and moving from the realm of disagreements and disunity to a situation of agreement, harmony, and the unity of "seventh-grade fellowship."

A COMMUNITY WELFARE PROJECT ¹⁰

The Community Chest drive in Denver has been launched and the Mite Box used for contributions of school children is introduced into the classroom. The natural curiosity of some of the students is aroused by the incident. A question raised by one of the group is spontaneous, "Why are we asked to give money and for what purpose is it used?"

¹⁰ Submitted by Thelma D. Hill, Byers Junior High School, Denver Public Schools.

DECIDING ON THE PROBLEM. The teacher is alert to the problem thus presented and is ready to accept the challenge of experimenting in a real learning situation. An expressed need for understanding is the opportunity at hand. Imagination projects a scope of limitless possibilities for learning through experience. The problem approach is natural.

I understand that there is a well-organized welfare program in Denver as well as in many other large cities. Do you children know what such a program is and what it does?

One boy replies: "I know that the Big Brother organization has something to do with it because I have a 'big brother'—a businessman who acts as a father to me."

Other children who belong to Boy and Girl Scouts volunteer information that their groups get some help from the Chest.

"How many kinds of people are helped by community welfare?" asks the teacher.

"I don't know, but couldn't we find out?" is the eager question.

"Since almost everyone is affected in one way or another, would you like to investigate the Chest program?"

"Yes," chorus the children.

"How can we go about making a study of Denver's welfare program?"

PLANNING THE ACTIVITY. A great deal of discussion and suggestion ensues while the teacher notes the most logical ideas proposed. Each student who wishes to express himself is permitted to do so. At the end of the discussion period, the class is asked to evaluate these suggestions. Without any difficulty the students select the best-planned procedures. These statements are written on the board:

"We should collect all the pamphlets published by Chest headquarters."

"We should ask the librarian for information concerning Chest agencies."

"We should visit some of the Chest agencies to see how they operate."

"We should contact headquarters for information on how best to proceed."

Further teacher-student planning organizes the class into groups, and there are the necessary delegations of responsibilities in order to permit the project to move along rapidly. Enough information about Chest agencies is secured to enable the students to select the various community-sponsored projects they wish to visit.

This step leads to the recognition of another problem. These questions are directed to the teacher:

"Are we permitted to visit agencies?"

"What authorities should we contact for information?"

"How are visits conducted?"

This problem presents the need for teacher guidance while the students do the planning. It becomes necessary to teach such skills and information as:

1. The proper way to contact certain authorities.
2. Correct and business-like written requests for information.
3. Correct telephone usage.
4. Techniques of interviewing and skill in note-taking.
5. Responsibilities to be assumed by each student for successful field trip activity (manners, courtesy, resourcefulness in achieving goals).
6. Knowledge of school regulations regarding field trips and the necessary steps to be taken in observing these regulations (recognition of the necessity for social rules and restrictions).

SOLVING THE PROBLEM. The students then set about the business of gathering information leading to the understanding of their problem through actual contact with persons, places, and things. They plan to make their visits in small groups. Each group elects a chairman who is to be the leader. Every student realizes that he must contribute his share to the undertaking and that he must cooperate with other members of the group.

An afternoon is selected by the students for the field work; at the end of the appointed time, each group reports to the teacher, who has remained at school. Eager and enthusiastic,

the students bring back to their classmates the results of their observations and inquiries. Oral reports are made, but the students feel the need of organizing their new-found information into more permanent form.

"How can we make use of your stories about the people you have seen and the interesting facts you have gathered?"

Thus the teacher launches further discussion.

The class decides that publishing a newspaper would be the best way to present the information to all who are interested. Again there arises a problem situation which necessitates more research and planning. Before the activity can be launched, the class studies several local newspapers for form and content. Then the class is ready to organize into functional groups. The purpose of publication has to be considered, as well as the nature of the material gathered, in order to determine the necessary departments. The function of each department is discussed and listed. Each student decides which type of writing, illustration, or executive work he prefers.

The physical setup of a newspaper office is simulated as nearly as possible. Groups are at work all over the classroom. Chairmen of various groups find it necessary to confer with each other in order to correlate their activities. The statistics department formulates problems in mathematics which utilize actual figures quoted in welfare literature. These original problems are used for drill in fundamentals and in percentages. Evaluation and criticism by the class is found to be valuable in working the problem material into its final form.

Interesting feature stories and news items are illustrated by the art committee. One of the most interesting and valuable contributions is originated by the proof readers who compile a *Style Book*. This contains the standards for all oral and written English to be used in preparing the newspaper. This material is well organized into chapter headings and is interestingly illustrated. Terminology selected from welfare pamphlets by the students supplies an integral vocabulary and spelling list. The need for definitions and synonyms leads to the development of dictionary skills.

All written articles for the newspaper are checked and criticized by the editor and his staff in order that all material may conform to the established editorial policy.

This welfare study has brought the children into closer contact with people of many races and with various standards of living. They become interested in racial problems and in minority groups. Some find books in the library which deal with these problems. *Little Aliens*, *Little Citizens*, and *Shuttered Windows* are reviewed for the book section of the paper.

Controversial questions lead to spirited debate. Small groups dramatize skits based upon social problems. Interest in people deepens. This motivates the request for the singing of songs of many lands.

The sports reporters propose that the physical education department sponsor boxing tournaments to augment Mite Box contributions. Thus the project begins to reach out and to integrate special departments of the school.

Students in home economics and science classes find a new interest in health problems and the effects of diet. The expanding scope of the enterprise demands of each learner greater ability to organize and greater power to control and to focus the many plans toward one meaningful whole.

CULMINATING ACTIVITIES. At the end of several weeks, the editorial staff of the *Community Chest Crier* is ready for the task of assembling all suitable material on make-up sheets preparatory to printing. The evaluation of the project is made by the class as a whole. The students summarize their experiences with a question-and-answer forum. They are critical about the response of students to the Mite Box. They are objective about their attitude towards the unfamiliar and toward people less fortunate than they and ask such questions as the following about their own development:

1. How does each feel about his own personal growth in leadership and self-confidence?
2. Does he understand better such terms as welfare, health, misfortune, poverty, justice, and social responsibility?

3. Does he recognize the need for all citizens to be concerned with building a better community, with each one doing his share?
4. Has each learned to contribute his own special talent to a large and worthwhile piece of work planned and executed by group practices?

Democratic action in the classroom thus functions effectively to promote learning and social growth when real problems are solved by group practices. These democratic procedures accomplish goals which are beyond the limits of individual achievement.

TEACHER-STUDENT PLANNING IN SENIOR SOCIAL SCIENCE ¹⁷

The seniors whom I was to teach in social science were students with whom I had had no previous contact, except casual ones about the school. All students had had a required course in social studies during their junior year, devoted to a study of the American scene. The program for the senior year calls for a rounding out of the social science experiences of students, the exact nature to be determined by teacher-student planning.

PRELIMINARY PLANNING. I opened the first planning meeting by "putting my cards on the table" before inviting their suggestions as to the work of the year. I began by saying that there were certain definite requirements which I set up for seniors which I explained as follows: Since for some this would be the last year of school and for a great many more the last year of general education many of these requirements grow out of one of the few certainties about the future—that all of them will be citizens, good or bad, and that this might be the last chance schools would have to affect the quality of citizenship. To me that means, among other things, that students should be trying to discover and resolve their inconsistencies, get light

¹⁷ Submitted by Margaret Willis, The Ohio State University School, Columbus, Ohio.

on their prejudices, locate and evaluate the information needed for reaching conclusions on significant questions: they should be learning to handle controversial questions in a way which generates more light than heat, and acquiring skill in the kind of discussion which brings information to bear on the issues rather than the kind which someone has called "the forensic exchange of ignorant opinion." To me the complexity of modern life and the rapidity of change make the conclusion inescapable that we cannot hope during the years of school to teach children all the things they are going to need to know. Hence, our best hope is to teach them to recognize problems and to give them as much experience as possible in dealing with problems through the method of intelligence.

SUGGESTIONS. Since the approach to a year's study, thus outlined, required an intimate knowledge of individual strengths, weaknesses, interests, awarenesses, and prejudices which I could gain only slowly and inadequately, I asked the students to look at themselves and their backgrounds and to suggest what they most needed to study. The first day a number of suggestions were made.

1. Study of government organizations, our own and others.
2. How government organization has developed.
3. Politics.
4. Understanding parties and elections.
5. High points in America's past.
6. Our relations with the world.
7. Postwar world—what to do with other countries, enemy and occupied; how to organize to prevent war.

Two more periods were spent in discussing and grouping these various suggestions, and checking against work done in previous years to locate gaps and overlapping. In connection with each proposal we looked at the way in which we would need to study it in order to achieve the values which I held to be important. Both the class and the teacher had a good deal of difficulty in understanding each other, but some progress

was made in getting each other's viewpoints. There was a strong argument in favor of studying politics, political parties, and elections since a presidential campaign was underway and political feeling was running high, and there was everywhere a superabundance of plausible assertions which needed examination.

DECIDING ON THE UNIT. On the fourth day, the class decided to work on politics, government, and elections until after November 7th, and to use this first study as a chance for class and teacher to get better acquainted with each other. Thus the planning of the rest of the year's work was postponed until after election.

After a short period of work on general background, each student selected some special aspect of the election for individual study and report—the P.A.C., background of the candidates, issues, men behind the candidates, etc. In every study I insisted on certain things, chiefly that no one was to choose a topic and collect just the material put out by his side and calculated to reinforce his prejudices. The materials used included those issued by the parties and candidates, current magazines and newspapers, radio programs, political meetings, and interviews as well as books. After trying to evaluate partisan material and to find the truth among all the contradictory assertions, perhaps the most significant conclusions the students reached were that it is difficult to be judicial in the midst of the sound and fury of a campaign, and that the best time to find out whether a man is good or not is on the basis of his record as he goes along.

In conclusion, it should be noted that the planning for the year's work in November proceeded much more smoothly as a result of this experience in working together.¹⁸

These actual illustrations of teacher-student planning are far from ideal. They indicate some of the difficulties which are encountered. To some, they may indicate that the whole idea

¹⁸ For additional illustrations of teacher-student planning, see H. H. Giles, *Teacher-Pupil Planning*. New York, Harper and Brothers, 1941, and Theodore Brameld, et al., *Design for America*. New York, Hinds, Hayden and Eldredge, Inc., 1945. A report of an experiment in cooperative planning in the Floodwood, Minnesota, High School.

should be abandoned on the ground that time is wasted. To the author, they are clear illustrations of the democratic process which is slow—and sometimes wasteful, but which in the long run appears to be the best way of promoting the optimal development of all.

SUMMARY

Teacher-student planning is an attempt to translate the basic principles of democratic living in terms of the day-to-day life of the school. Contrary to the belief of many people, it does not mean that students are allowed to do as they please, but rather that the activities that make up the curriculum of the student be planned and carried out through the cooperative thinking of the teacher and his students. The teacher does not abdicate, but assumes such control over the situation as will facilitate the achievement of democratic values, and the efficient carrying out of purposes and plans.

Since teacher-student planning is a process rather than an end result, it is to be expected that the extent of such planning will be conditioned by the ability and willingness of the students to assume their proportionate share of responsibility. The teacher has to start at the level on which the class can think and work cooperatively, and move to higher levels in terms of the maturity level of the group and its growth in the ability to assume greater responsibility. This way of working with students is bound to have far-reaching effects upon the logically organized curriculum.

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GUIDANCE THROUGH CLASSROOM ACTIVITIES

THERE IS PROBABLY NO AREA OF HIGH-SCHOOL EDUCATION IN which more confusion exists than in the meaning of guidance and its application to the curriculum. And this confusion is more than academic, for it results in confused practices in the high school.

HISTORICAL BACKGROUND OF GUIDANCE

This confusion is more readily understood if guidance is considered in its historical perspective. The educational use of the term began in 1908 in connection with vocational placement, and for some time was applied only to the organized efforts of a school to find suitable jobs for high-school students in terms of their desires, vocational aptitudes, and training. So firmly did this limited concept become entrenched that even at the present time many people think of guidance primarily in terms of helping young people to find their places in the vocational world. As the high-school population increased and the formal curricular offerings expanded, a need arose for educational guidance, and the concept was extended to include the

help given to the student in choosing the curriculum best fitted to his present and future needs. The increased complexity of the culture, the increased number of broken homes due to mounting divorce rates, increased sensitivity to problems of mental hygiene and problems of health all contributed to further the expansion of the meaning of the term, so that present-day writers classify guidance activities in terms of the many facets of the help given to young people in solving their problems, e.g., vocational, moral, social, and educational. In most cases, these new functions were taken over by the school as supplementary activities, without changing to any great extent the formal curriculum offerings. An exception to this statement is the addition to the formal curriculum of such courses as "occupational civics," "economic civics," or "guidance." These courses were usually offered early in the junior high-school period and were designed to orient the student primarily to the world of vocations, and secondarily to the educational opportunities offered by the school. In the larger schools, these added functions were performed by new personnel known as counselors, deans of boys, deans of girls, or coordinators. In the smaller schools, they were assigned to the regular classroom teachers. In both cases, however, the classroom and guidance functions were regarded as quite separate and distinct. Many modern writers still hold to this distinction, as we shall see when we examine the present meaning of the term, guidance.

MEANING OF GUIDANCE

Authorities in the field of guidance are in fairly complete agreement on the definition of guidance. The following is probably typical:

Guidance in the secondary school refers to that aspect of the educational program which is concerned especially with helping the pupil to become adjusted to his present situation and to plan his future in line with his interests, abilities, and social needs.¹

¹ Shirley A. Hamrin, and Clifford E. Erickson, *Guidance in the Secondary School*. New York, D. Appleton-Century Company, Inc., 1939, pp. 1-2.

This is but another way of stating the purpose of education in the modern school, and certainly does not segregate guidance from other educative functions. The words "concerned especially" are designed to assign guidance a special place, but should not *all* education be concerned *especially* with the purpose of guidance as stated?

Galen Jones offers the following definition formulated by the faculty of his school: ²

Guidance consists of (a) teaching a pupil to conceive objectives that are meaningful and worthy for him, socially desirable, and attainable in the light of his background, ability, and development, and of (b) helping him to achieve these objectives.

Again it should be noted that one might substitute the word, "education," for guidance in the above definition without in any way changing its meaning. Is guidance, then synonymous with education? If so, why use the term at all?

The definitions stated above are further re-enforced and extended by the definition of guidance offered in the Cooperative Study of Secondary-School Standards:

Guidance, as applied to the secondary school, should be thought of as an organized service designed to give systematic aid to pupils in making adjustments to various types of problems which they must meet—educational, vocational, health, moral, social, civic, and personal. It should endeavor to help the pupil to know himself as an individual and as a member of society; to enable him to correct certain of his shortcomings that interfere with progress; to know about vocations and professions so that he may intelligently choose and prepare, in whole or in part, for a life career; and to assist him in the constant discovery and development of abiding creative and recreational interests.³

In the above definition, and in the ensuing discussion, emphasis is placed upon "organized service," and "systematic aid."

² Arthur E. Traxler, ed., *Guidance in Public Secondary Schools*. New York, Educational Records Bureau, 1939, p. 21.

³ *Evaluative Criteria*. Washington, Cooperative Study of Secondary-School Standards, 1940, p. 63.

Presumably the purpose of this emphasis is intended to distinguish guidance from the total educative process, but just to the extent to which the high school conceives of its function as helping the adolescent to meet his needs, it organizes its curriculum for this purpose, and again the distinction between education and guidance tends to disappear.

THE TRADITIONAL HIGH SCHOOL AND GUIDANCE

We conclude that the definitions of modern guidance and education are essentially the same. Why has it been necessary for the guidance agencies, and the curriculum, which, in the modern school embraces all of the student activities carried on under the direction of the school, to exist side by side as separate entities? The answer is to be found in the character of the traditional high-school curriculum. While theoretically, it has always been claimed that organized subjects met the needs of students, as a matter of fact these subjects have been far removed from the actual problems which youth face in the modern world. What problems are met, for example, through the typical course in world history, classical or modern language, advanced mathematics, or literature? For the student who expects to attend college, and has been strongly motivated to prepare for the college entrance examinations, such subjects undoubtedly meet a need, however remote the actual content may be from his present-day living. But what of the large numbers of students who have no desire or expectation of going to college? For them these subjects represent mere hurdles to be jumped in the process of getting a high-school diploma, or arriving at the end of the compulsory education period. In a wider sense, of course, "good" students find security and a sense of achievement in being able to perform successfully the tasks set by the school, however meaningless they may be in terms of the present life of the student. Some subjects may even provide a necessary means of temporary escape from the stern realities that he faces on the playground or in his social life outside the

school.⁴ If the above picture is accurate, then is it fair to ask where youth turns for a solution of his problems?

EXTRA-CURRICULAR ACTIVITIES. Many schools that still prize the traditional subjects, possibly for their disciplinary value, have organized elaborate programs of extra-curricular activities. These programs, however divorced they may be from the work of the classroom, have significant potentialities for meeting student needs. As a matter of fact, it is easier to justify them on the basis of the objectives of education in a democratic society, than many of the so-called curricular activities. Through the student council the student has an opportunity to participate successfully in socially significant activities; through assembly programs he may satisfy his need for creative self-expression; through the athletic program he meets many of the health needs and learns many lessons in group responsibility; through the various clubs he may develop hobbies such as photography, collecting, and the construction of gliders and airplanes; through the various social activities, he may solve many of his problems of face-to-face relationship with the opposite sex; through the school newspaper and dramatic societies he meets his need for social recognition.

But these activities are, at best, outside the regular channels of the life of the school. The principal business involves the daily schedule of classes, with the necessary grades and marks, and the accumulation of the sixteen units that are prescribed for graduation. To determine whether an activity is "regular" or "extra," it is only necessary to ask whether or not credit toward graduation is granted for it. The answer reveals the activities that the school actually prizes. It is not uncommon for schools to grant "extra credit" for certain activities carried on outside of the regular classes, such as glee clubs, athletics, or home projects in gardening or canning. Since, however, these activities do not meet the definition of the Carnegie unit, they are supple-

⁴ For a discussion of this point see V. T. Thayer, Caroline Zachry, and Ruth Kotinsky, *Reorganizing Secondary Education*. New York, D. Appleton-Century Co., Inc., 1939, Chapter X.

mentary credits which are over and above the sixteen units required for graduation. Usually such credits are not accepted by the colleges for entrance.

It is not difficult to see that a school organized as described above would need some "organized service" to meet the needs of the student. Such a service would help him to make the appropriate adjustment to his classes, and to solve problems of personal adjustment which "interfere with progress," but it should be pointed out that much of this need for a systematic guidance program grows out of the failure of the school to meet its obligations to youth through an appropriate curricular organization.

HOMEROOM PROGRAMS. As one way of remedying the situation, schools have adopted comprehensive homeroom programs, which have a multiplicity of purposes, such as record keeping, supervised planning for class or school social affairs, and guidance.⁵ In most instances homerooms are rather ineffective for guidance purposes, not only because of lack of time, but also because the organization is external to the ongoing life of the students, both in and out of the school.

THE SPECIAL COUNSELOR. Another way of bridging the gap in the conventional school between guidance and the curriculum is for the principal, or someone designated by him, to act as coordinator or counselor. He advises students as to appropriate courses, deals with disciplinary cases, gives tests, interviews students with respect to their vocational interests, and coordinates the work of the homeroom teachers, particularly with reference to all-school affairs, and has charge of records and reports. As the school becomes larger, specially qualified guidance experts are employed to take care of the various types of help that students need, vocational, mental, health, social, and the like. Very frequently these guidance specialists have had no preparation for curriculum work, and very little interest in it.

⁵ See H. C. McKown, *Home Room Guidance*. New York, McGraw-Hill Book Company, Inc., 1934.

Thus an elaborate systematically organized program of guidance gradually develops which is often quite external to the day-to-day classroom work of the students, and also quite apart from the work of the classroom teacher.

THE MODERN HIGH-SCHOOL CURRICULUM AND GUIDANCE

The purpose of the discussion up to this point has been to attempt to clear up the confusion between education and guidance, and to show that many current practices in guidance originate in the failure of the traditional school to meet fully the obligations placed upon it by our complex democratic culture. We now turn to the resources of the modern high school for carrying out the functions described as "guidance" in the definitions quoted in the preceding section.

ROLE OF THE SECONDARY SCHOOL. As was pointed out in Chapter II, the principal function of the school is to help each student to discover and extend his interests, meet his needs, and weave them into a unified ever-changing design for living. In doing this, the school (1) gives experience in democratic living, and helps the student to intellectualize such experience in terms of democratic values, (2) helps each student to achieve a dynamic understanding of our democratic tradition through the intelligent examination of conflicting values and practices, and (3) provides for optimal physical and mental health, defined in terms of adequate functioning in democratic living.

UNIFYING THE CURRICULUM AND EXTRA-CURRICULUM. The total life of the school should be dedicated to the achievement of these goals, and the curriculum broadly interpreted is the chief resource which the school utilizes. The differences between the curriculum and the extra-curriculum tend to disappear because the so-called extra-curriculum, which provides a large measure of direct experience becomes a part of the regular work of the classroom. The photography club is

absorbed into the regular work of the science area. The language club becomes indistinguishable from what goes on in the modern language classroom; the school newspaper and the dramatic clubs are vehicles of the language-arts area for achieving its purposes. The glider club is a way, used by the arts (or science) area, of providing for the diversified interests of students. School government is a means of vitalizing social science (or core) instruction. Intramural athletic programs are but concrete expressions of the health program of the school. The school assembly is an extension of the work of all classrooms, not something external to them. Even the school lunchroom becomes an integral part of the instructional program, as menus are planned by home economics classes, and the system of accounting is taken over by the mathematics, commercial, or consumer-science area. The accomplishment of such a program of unification cannot take place unless the principal objective of "covering ground" gives way to the purposes stated above. When organized subject matter is seen as a means of meeting and solving problems, the covering of ground becomes of secondary importance. This seriously violates the conception of the Carnegie unit, but that historic device is already considerably questioned by educators and is probably on its way out.

THE CORE CURRICULUM AND GUIDANCE. In Chapter VI, the evolution of the core curriculum as a way of meeting directly the common needs of young people, of helping them in the solution of their problems, and of extending their interests was discussed in some detail. Tentative problem areas were proposed in the major aspects of living in order to give breadth to the program. In order to illustrate how such problem areas function in guidance, we shall analyze briefly one possible unit in each of the four basic areas.⁹

In the field of *Immediate Personal-Social Problems*, one of the units which is certain to help students with many of their problems deals with "Boy-Girl Relationships." The specific

⁹ See pp. 174-175 for suggested problem areas in each of these aspects of living.

scope of such a unit would have to be determined by the grade level, a study of the problems faced by the group,⁷ and the local community situation. Conceivably it would help young people to find satisfactory answers to many of their problems. Such problems as the following might be included: (1) how to get dates; (2) how late to stay out on dates; (3) personal conduct on dates; (4) what to do on dates; (5) chaperonage; (6) bases for selecting a mate; (7) health problems in marriage; (8) sex life in marriage; (9) the religious factor in marriage; (10) economic factors in making a home; (11) the role of the emotions in sex behavior; (12) maturity in sex relationships.

In the area of *Immediate and Wider Community Problems*,⁸ a unit on "Public Opinion," how it is formed and the mechanisms for changing it, would be rather close to some of the problems young people face in trying to achieve adult status in a society that has many conflicting values. Among them might be the following: (1) bases of disagreement on political and social issues; (2) the movies, the radio, and the public forum as molders of public opinion; (3) psychological mechanisms involved in molding public opinion; (4) the role of young people in forming public opinion; (5) science and technology in relation to public opinion; (6) use of national polls in determining and changing opinion; (7) propaganda and public opinion; (8) the role of the school in creating public opinion; (9) the role of the church and other institutions in creating public opinion; (10) treatment of minority groups; (11) freedom of speech; and (12) the American tradition of free expression in art, music, literature, economics, politics, and the like.

In the area of *Wider Social-Economic Problems*, a unit or series of units on the "Impact of Science and Technology on Living" is essential to assist young people in trying to work out their personal roles in a rapidly changing society. The problems in this field certainly would include at least some of the following: (1) the conflict between science and religion; (2) tech-

⁷ See Chapter III for various analyses of problems and needs of adolescents.

⁸ For an analysis of the problems of young people in the air age, see Chapter XI.

nological change and unemployment; (3) social responsibilities of the scientist and inventor; (4) technological change in the community; (5) science in relation to health; (6) science and war; (7) influence of science on philosophical systems; (8) functional design in art; (9) the scientific attitude in relation to problems of living; (10) science and social welfare; and (11) the evolution of technology.

In the area of *Personal Development Problems*, a unit on "Building a Social Outlook," in the eleventh or twelfth grade would serve to bring together much that has been learned throughout the high-school period, and help the student to systematize and unify his values. In such a unit, the following problem areas are suggestive of the material which might be valuable: (1) the role of different fields of knowledge (e.g., mathematics, literature, the arts) in building a social outlook; (2) the nature of clear thinking in reconciling conflicts in values; (3) the role of the emotions in developing a social outlook; (4) exploration of the American tradition of democracy as a means of clarifying social values; (5) study of leading contemporary philosophies and philosophers; (6) reasons for conflicts in philosophy; (7) philosophy and religion; (8) clash between the younger and older generations in moral and social standards; (9) influence of philosophy upon living; (10) the role of education in changing social values; and (11) keeping one's values up-to-date.

In presenting these highly tentative illustrations, the assumption is, of course, that students, planning with teachers,⁹ would develop the actual scope and learning activities involved. This would insure that the problems dealt with would be those which the teacher and students, working together, would decide were most helpful to the group as a whole. Obviously, many problems would assume an individual character that would not fit in readily with group discussion. This is the point at which individual counseling comes into the picture. This does not mean, as some guidance experts would have us believe, that the emphasis shifts from "education" to "guidance" as the teacher

⁹ See Chapter XII on Teacher-Student Planning.

deals with the individual problems of students. For example, one writer distinguishes between "education" and "personnel work" in the following manner:

Teachers and personnel workers employ different techniques to assist students to achieve orientation and maturity. Teachers depend chiefly on classroom methods of instruction, usually and unwisely restricted to intellectual content in disregard of other vital phases of the individual's personality. But recently, at least in elementary and secondary schools, new techniques designed to facilitate pupil growth in personality, emotions, and attitudes have been introduced. Sometimes the new contents of instruction were bootlegged into the curriculum by personnel workers under the guise of group guidance.

As contrasted with instructional techniques, personnel work utilizes a different method to achieve the objectives of education. Essentially, this is an individualized method as opposed to the group method of teaching. No diagnoses are made in the teaching method, but in personnel work, diagnoses are the first contact with the individual. Then follows individualized teaching in the form of counselling. Moreover the individual is seen as a patterned whole, consisting of equally important partial needs and potentialities all of which must be dealt with according to their interrelations in such a manner as to achieve optimum growth and adjustment. Personnel workers do not restrict the area of their function to the cerebral cortex.¹⁰

In the above quotation the writer is evidently describing a very traditional program of group instruction, and a very modern program of personnel or individual guidance work, for he states significantly:

When teachers supplement group instruction with personal conferences and with other methods of individualized education and as the curriculum expands to include material dealing with so-called non-intellectual adjustments, personnel work will become an integral part of education.¹¹

That the writer has little faith in a unification of the "instruction" and the "personnel" functions is made clear by his insistence that:

¹⁰ E. G. Williamson, *How to Counsel Students*. New York, McGraw-Hill Book Company, Inc., 12-13, 1939.

¹¹ *Ibid.*, p. 14.

Personnel workers should insist vigorously upon remaining differentiated in point of view and methodology from teachers until the latter have become professionally trained with a corresponding change in point of view, in the effective teaching of the whole child.¹²

In the core program which has been discussed, no such distinction can reasonably be made. The processes of group and individual instruction are but aspects of the complete learning situation. In both cases, the teacher is helping the student to find his own answers to his problems.¹³ In some cases, group instruction is more successful, particularly when the students are acquiring new points of view, which can best be accomplished through the interplay of differing ideas and opinions. For example, the broad issues of the so-called conflict between science and religion are appropriate matters of group instruction. On the other hand, the particular problem which a student might face in individual or family conflict over religious beliefs, could best be dealt with on an individual basis. Both kinds of instruction are integral parts of the teacher's job in the modern school, and there seems to be no good reason for calling one aspect "education" and the other aspect "guidance" or personnel work. The ultimate remedy for the situation lies not in the multiplication of personnel with sharply differentiated functions, but rather in the adoption of the broadened conception of the work of the teacher, with a consequent revision of the curriculum. In schools where personnel workers are employed, their principal job ought to be curriculum reconstruction, and the in-service training of teachers.

GUIDANCE THROUGH REORGANIZED FIELDS OF KNOWLEDGE

The foregoing discussion has attempted to show that the gap between education and guidance is bridged when the com-

¹² *Loc. cit.*

¹³ For an interesting discussion of the individualized non-directive technique of helping students to clarify their problems and needs, rather than of giving ready-made answers, see Carl Rogers, *Counseling and Psycho-Therapy*. Boston, Houghton Mifflin Company, 1942.

mon needs, problems, and interests of students are made the center of core curriculum development. It should not be assumed, however, that subjects or fields of study properly conceived do not likewise have great potentialities for individual growth and development.¹⁴ A number of these will be pointed out.

SCIENCE. The Commission on the Secondary-School Curriculum of the Progressive Education Association makes clear in its various publications that subjects or fields may be reorganized to meet more effectively the needs of students. The general point of view is well expressed in the following quotation:

It is now almost universally granted that the intellectual content of subjects under study or projects undertaken must link with the personal concerns of the learner as well as with the social scene into which he is finding his way. Far less often are these very personal concerns recognized in terms of their origins in the life histories of individuals. The individual's understandings are not only colored by his emotional bias; they are a direct expression of it. He responds to the subjects of instruction with his whole being, and not with his so-called 'mind' alone.¹⁵

The implementation of the point of view is to be found in the various publications of the Commission.¹⁶ For example, the science program which is advocated starts with the assumption that science must be organized so as "to meet the needs of the individual in the basic aspects of living."¹⁷ The entire study is organized around these needs, and science content is recommended for the purpose of meeting each of them. Similar studies of the commission include the areas of mathematics, social science, language, and art.

¹⁴ For a discussion of some trends in the reorganization of subjects, see Chapter IV.

¹⁵ V. T. Thayer, Caroline Zachry, and Ruth Kotinsky. *Reorganizing Secondary Education*. New York, D. Appleton-Century Company, Inc., 1939, p. 373.

¹⁶ See pp. 207-211 for an analysis of the Commission's procedure in curriculum making.

¹⁷ See Committee on the Function of Science in General Education, *Science in General Education*. New York, D. Appleton-Century Company, Inc., 1938.

SOCIAL STUDIES. The trend in the social studies field toward orienting subject matter to the present life of the student is unmistakable. A recent pronouncement of an influential group of social science teachers makes this clear:

Problems of personal, family, and school relations are still too largely neglected in the school curriculum. Yet such problems are of major concern to the student and teacher; when utilized they furnish intensive motivation for vital study. The problems the student encounters in his immediate environment affect his values, behavior, and attitudes. We neglect student problems that are immediate and personal at the peril of all we wish to achieve through any teaching. . . . Consequently the commission specifically recommends that:

—school government should be utilized as a vehicle for the development and exemplification of basic concepts in social studies . . .

—problems which characterize group relationships in classes should be utilized through applying social studies concepts and democratic values to concerns of student life.

—boy-girl relationships and problems of social behavior are prominent among adolescent concerns; social studies teachers should take advantage of the opportunity involved to teach ethics, alcohol education, the social implications of sex behavior, and wholesome family life.

—since problems of relationships with family members are important to young people, we should teach sociological understanding of the family, and apply the knowledge to the problems of the immediate environment.

—social studies teachers should share with guidance officers, other teachers, and school workers, the responsibility for developing self-understanding and satisfactory social adjustment by individual students.¹⁸

When social studies teachers take seriously these recommendations, it can no longer be charged that the social studies field is remote from the life of the learner. A good illustration of the trend is a recent textbook¹⁹ which boldly disregards

¹⁸ Advisory Commission of the National Council for the Social Studies, *The Social Studies Look Beyond the War*. Washington, The National Council for the Social Studies, 1944, p. 23.

¹⁹ Leon C. Marshall and William M. Brish, *Understanding Yourself and Your World*. New York, Harcourt, Brace and Company, 1944.

subject-matter lines, bringing to bear the basic facts of science and technology, language developing, historical evolution, and ethics upon the problem of orienting the student to his world. Extensive emphasis is placed upon the impact of the culture on the individual, how he learns, how he develops language, how he creates and uses tools to serve his ends, how he uses biology and the physical science to solve his problems and to better the conditions of his life. Like most textbooks it resorts too much to the technique of *telling* the student rather than helping him to make discoveries for himself, but it definitely breaks with traditional systematic organization.

THE ARTS. The field of the arts, particularly home economics, is rapidly becoming emancipated from traditional organization and is going about the important business of meeting the needs of students. Home economics can no longer be characterized by "sewing and cooking," but now includes child care, dietetics, personal regimen, home decoration, sex relations, face-to-face problems, and the improvement of family life. It is limited by the fact that it is essentially a program for girls, and many of the important aspects are not elected by the college-bound student, on the dubious assumption that they are less valuable as college preparation than conventional credits in languages, science, and mathematics. The fine arts are also making progress and are becoming exceedingly valuable in developing self-confidence through creative expression. Gradually they are being extended to include ceramics, weaving, puppetry, jewelry making, and the like, and are helping the student to meet many of his personal problems. All too frequently, however, they are divorced from the social scene, and the many implications of the arts in social living. Like developments are underway in the industrial arts, although this field suffers from being divorced from the social sciences and the other arts.

LANGUAGE ARTS. Language and literature have tremendous potentialities for helping young people to solve their problems, once these fields are freed from formalism, which expresses

itself in dreary drills on grammatical construction, meaningless compositions external to the learner, and the excessive preoccupation with the classics at the expense of modern literature. The newer trends in semantics, the development of techniques of group discussion—forums, panels, and the like—are steps in the right direction.

MATHEMATICS. The impact of the war upon mathematics has had the effect of hastening reorganization in order to make it serve human needs. Its application to aeronautics, navigation, and mechanics has tended to make it less dependent upon abstractions. Paralleling this development, reorganization in terms of its function of helping students to understand and utilize the scientific method has already made a beginning.

HEALTH. Another field that frequently is neglected, but which has significant possibilities in helping youth to solve his problem, is health and physical education. The recent emphasis upon intramural as opposed to interscholastic athletics, periodical health examinations, mental hygiene, and remedial instruction are all intended to make the field more valuable and vital.

This brief analysis of some of the fields of knowledge should indicate that the point of view of teachers, curriculum makers, and textbook writers is gradually undergoing a significant change in the direction of what Williamson calls "the personnel point of view." As these reorganizations gain increased momentum, the impossibility of marking off classroom instruction from guidance will become more and more apparent. As a matter of fact, *the need for a formal guidance program decreases as the curriculum is reorganized to meet the actual problems of youth.*

ORGANIZATION TO PROMOTE GUIDANCE

A number of schools that have developed core curriculums have centered the so-called guidance function in the core teacher or teachers. This is, of course, a logical development since, as has been shown, the core curriculum is usually organized around

the basic common needs of youth. In the Ohio State University School a chairman or counselor is designated at each grade level. This teacher is charged with the chief responsibility for (1) giving and coordinating instruction in the core, (2) coordinating the activities of the grade group within and without the core period, (3) giving help to individual students, and (4) coordinating records and reports. Many larger schools follow a similar pattern, except that a chairman (or counselor) is designated for each unit group—usually thirty to forty students. These grade chairmen usually continue with the same group of students for a two-year period. This gives continuity to the program and makes it possible for the chairman to become very well acquainted with the individual students.

The William A. Bass Junior High School of Atlanta, Georgia, has operated successfully for a number of years upon the basis of a "little school" organization. Each of the three grades of the school is broken up into three or four little schools of 125 to 150 students, each of which has its faculty, its own class organization, and its own parent-teachers' organization. For each little school faculty, a chairman is designated that carries on most of the functions described above. As many as possible of the faculty remain with the group for a two-year period. Considerable variation in curriculum organization exists among the several "little schools." Continuity is maintained by holding frequent meetings with the principal for the purpose of discussing common problems.

In schools that operate on a subject basis, the most common procedure for organizing the so-called guidance function is the homeroom. The problem of unifying individual and group instruction is more difficult under such a setup unless the homeroom teacher offers instruction in at least two subjects, is allowed ample time for giving individual help to students, and continues with the same group of students over a two-year period.

THE NEW ROLE OF THE CLASSROOM TEACHERS. It is apparent from the foregoing discussion that the traditional

role of the teacher as a maker of assignments and a hearer of recitations undergoes a marked change as the curriculum reorganization movement gets underway. This calls, first of all, for a new type of teacher preparation. The familiar plan of building up majors and minors in organized subject-matter fields, without any reference to the use of the subject matter in learning, with separate courses in psychology and methods of teaching, general and special, and a short period of practice teaching, will have to give way to drastic reorganization which prepares teachers for their new responsibility. The tendency among teacher-education institutions is to add some new courses in guidance and field work to the already overcrowded curriculum, but this is, at best, a makeshift. Meanwhile, school administrators will need to develop in-service programs, in the form of workshops or study groups, possibly with the assistance of college personnel, for the purpose of re-educating teachers in terms of their new functions. As such programs become widespread, the teacher-education institutions will reorganize to meet the new demands. In the second place, as teachers assume more and more responsibility for individual as well as group instruction, traditional notions of class size and teaching loads will have to undergo change. To ask the teacher to assume new responsibilities without corresponding readjustment in the number of daily student contacts, and in class size, is a way of insuring the failure of the enterprise.

THE ROLE OF THE SPECIALIST IN GUIDANCE. It must not be assumed that all of the problems which students face can be satisfactorily solved through programs of curriculum development along the lines set forth in the preceding discussion. There will still be need for personnel that is especially trained for giving certain specialized types of assistance to students. Expert assistance will be needed to carry out the following functions among others:

1. To coordinate the group and individualized instruction which is the principal responsibility of the classroom teacher.

2. To administer programs for promoting a better understanding of the student, through the securing of adequate data.
3. To aid in vocational placement of students both in the part-time work program of the school and in full-time employment at the end of the period of formal education.
4. To deal with difficult cases of physical or psychological maladjustments which require special training and skill of a psychiatric nature.
5. To maintain a follow-up of graduates and drop-outs and to interpret data regarding such a follow-up for the purpose of improving the guidance program, and the total school program.

It is beyond the scope of the present discussion to consider these functions in detail.

SUMMARY

1. The development of separate and distinct guidance programs in schools came about as a result of the formalism of the curriculum which has been an obstacle to providing optimally for the meeting of the needs of students.
2. It is not possible to make any logical distinction between the process of teaching and of guiding. Such distinctions are purely arbitrary, and are apt to violate the educative process.
3. As the high-school curriculum is reorganized to meet the needs of youth in the modern world, the need for elaborate guidance programs with a separate staff tends to disappear.
4. As the high-school curriculum is reorganized as indicated above, the role of the classroom teacher shifts from the imparting of subject matter to guiding group and individual learning activities.
5. The new responsibilities of the teacher call for a redefinition of teaching load, a new type of teacher preparation, and in-service education.
6. If the teacher is to be of optimal assistance in helping students to solve their problems, provision needs to be made for the "homeroom" teacher to continue for a two-year period with the same group of students.
7. The core-curriculum type of organization provides the most satisfactory plan for unifying the group and individualized aspects of learning.
8. The guidance specialist plays a very significant though different role when the curriculum is reorganized to meet the needs of youth.

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DEALING WITH CONTROVERSIAL ISSUES IN THE CLASSROOM

WHEN THE SCHOOL BEGINS TO DEAL REALISTICALLY WITH THE problems that young people face in the process of growing up in our democratic culture, the character of the curriculum changes significantly and problems arise that are unheard of in the traditional school. If the school conceives its function as primarily that of transmitting the culture of the past, and imparting facts and information, developing skills in fundamentals, and the like, there is little danger that issues will arise that will cause trouble. The student's actual problems rarely get into the picture at all. He must find solutions for them through other agencies such as the home, the church, youth organizations, or propaganda groups that are always anxious to supply the "right" answer. On the other hand, if the school curriculum is based upon any sort of analysis of the problems which confront youth as he tries to bring order to his values and standards, immediately the school becomes a forum for the discussion of problems upon which people feel deeply. Dealing with controversial issues is then one of the school's most difficult problems.

THE OBLIGATION OF THE SCHOOL
TO DEAL WITH CONTROVERSIAL ISSUES

A democratic society is always in the process of re-creating and redefining its ideals and values. This it does through the application of the method of intelligence to the solution of its problems. And this implies on the part of the citizen a familiarity with the techniques of planning and working cooperatively, and a zeal for settling differences through conference and discussion, rather than through resort to violence, or to the acceptance of answers given by a totalitarian government that forbids its citizens the right to think reflectively. This places an unmistakable obligation on the school if it is to become society's principal agency for the re-creation of values. Kilpatrick has stated the case succinctly in the following quotation:

The school must, then, come to grips with critical problems in all fields of experience. No restrictions are possible, except that experience should be adapted to the maturity of the learner. Many aspects of social, economic, and educational problems interest young children as every kindergarten and primary teacher knows. Opportunity for the child to deal with social problems at this level of maturity is an essential of the educative process in a democracy. And level of maturity is perhaps best shown by the fact of interest. Any and all situations must be open for study and criticism, all proposals for social improvement must be open for study in the light of democratic ideals.¹

If education, as Dewey so frequently has pointed out, is the continuous reconstruction of experience, the stuff out of which experience is to be reconstructed is the most important part of the school curriculum.

SOME ISSUES THAT ARE OF
CONCERN TO ADOLESCENTS

It is, of course, impossible to predict in advance the precise issues that would be of vital interest to any given group of high-

¹ William H. Kilpatrick, ed., *The Teacher and Society*. New York, D. Appleton-Century Company, Inc., 1937, p. 264.

school students, and would at the same time be at their maturity level. However, there is ample evidence that certain problems which involve issues are bound to impinge upon the life of the adolescent regardless of local conditions. A few of these are listed for illustrative purposes.

1. What kind of an economic system is best suited to our democratic culture?
2. How far should government go in the regulation and control of business?
3. What, if any, responsibility should the government assume in providing for each citizen a good standard of living; e.g., adequate housing, education, medical care, recreation, and fruitful work?
4. What fundamental ideas underlie different systems of government, and what system is best for America?
5. What kind of international organization is best for maintaining world peace?
6. Should there be compulsory military training in time of peace?
7. What are the causes of marital difficulties and divorces, and what should be done about the problem?
8. What should one do about the so-called conflict between science and religion?
9. How should one determine one's attitude toward religion?
10. How does a person go about the development of a philosophy of life?
11. How should a person determine standards of right and wrong?
12. What are the bases for determining truth in the different aspects of living?
13. What basic knowledge should the citizen have concerning health, sex hygiene, so-called social diseases, and birth control?
14. What should be our attitude toward different racial and minority groups?

15. Should parents try to impose their own set of values upon their children?

It goes without saying that all of these problems involve important issues about which we, as a people, are deeply concerned, and which involve deep-seated convictions. Most of the problems involve social issues about which the American people are divided. Issues involving the participation of the government in economic and social life are basic in our present political alignments. Issues involved in sex relations run head-on into conflicting moral and religious ideologies. Every problem listed would undoubtedly be the subject of controversy in most American communities. For that reason, should they be kept in the background or dismissed as inappropriate? The answer, of course, is that if they are issues about which the American people are in conflict or confused, if they are of interest to the adolescent, if they are at his maturity level, they should be included in the curriculum. Otherwise, we are failing to help the adolescent to live in our culture.

DIFFICULTIES ENCOUNTERED IN DEALING WITH CONTROVERSIAL ISSUES

Desirable as it may be for the school to assume responsibility for dealing with controversial issues, it must be recognized that there are serious obstacles which must be overcome if the school is to approach the problem realistically.

First, there is in the United States a very strong spirit of nationalism which has had a steady growth. After World War I, it was strong enough to keep the United States out of the League of Nations. While World War II has convinced many people that isolationism has no place in the modern world, anyone who advocates giving up any portion of our sovereignty to some form of world organization is looked upon with suspicion. On the other hand, the same people who are concerned over any loss of sovereignty, are fearful of national control of atomic energy. The threats of communism and fascism that

preceded our entrance into World War II still have a powerful influence on public opinion, and consequently upon our relationships with other nations. Schools need to study the issues involved, but large and powerful groups are seriously concerned about the conclusions that are reached through such study.

Second, there are powerful economic groups that are vitally concerned with what the schools teach. Many of them take every opportunity to propagandize the schools in favor of the point of view they hold, and to eliminate from the schools any material that tends to favor any other point of view. The activities of the National Association of Manufacturers in connection with social studies textbooks is a case in point. On the one hand, this organization through its publications seeks to influence the schools toward a "system of free enterprise," and on the other it seeks to eliminate from the schools textbooks which tend to cast doubt upon the desirability of that system. The general situation in the economic area is well stated by Beale.

Most dangerous of all are social and economic questions. A number of subjects are dangerous however "discreetly" handled: labor problems even in the abstract, the tariff and free trade, government regulation of industry, public ownership of utilities, business ethics, advertising methods, banking practices, minimum wage laws, child labor, old-age pensions and unemployment insurance. These subjects are risky even in the abstract. It would be impossible to reduce them to the concrete and discuss labor conditions in local factories where perhaps many of our pupils' fathers work, tax evasion of local businesses, bally-hoo methods of local realtors, or rates charged by local utilities.²

Third, there are questions involving the teaching of biological evolution that indicate that strong public sentiment opposes dealing with these questions. The anti-evolution laws of a number of states is sufficient testimony of the unwillingness

² H. B. Alberty and B. H. Bode, eds., *Educational Freedom and Democracy*. New York, D. Appleton-Century Company, Inc., 1938, p. 84. (From a chapter written by Howard Beale.) For further study of the controversy see Harold Rugg, *That Men May Understand*, New York. Doubleday, Doran and Company, 1941; Alonzo F. Myers, "The Attacks on The Rugg Books," *Frontiers of Democracy*, VII, 17-22 (Oct. 15, 1940); Mervin K. Hart, "Let's Discuss This on the Merits," *Frontiers of Democracy*, VII, 82-87 (Dec., 1940); "Propaganda Over the Schools," *Propaganda Analysis*, IV, 1-12 (Feb. 25, 1941).

of certain groups to permit schools to have a free hand in dealing with this important problem. Rarely do textbook writers deal comprehensively with the evidence supporting the theory of evolution. This is not because such evidence is not available, but rather because of the fear of public reaction. Even more rarely do teachers deal with the relationship between biological evolution and religious beliefs. Indeed, it is not unusual for students to complete the high-school program without ever having participated in any discussion dealing with this problem. In much the same category are classed problems involving sex relations, venereal diseases, and the like, even though such problems are crucial to the adolescent.

Fourth, problems involving racial and minority groups are frequently not discussed realistically in the high school because of the attitude of the community. Yet one of the principal tenets of democracy is respect for human personality. In the long run, education is the only successful method of dealing with intolerance and if education fails in the task, how shall democracy fare in the future?

Do these obstacles mean that the high school cannot deal effectively with controversial issues? If we answer this question in the affirmative, it means that the school is merely the instrument for perpetuating the status quo. If our democratic society is to be refined and re-created, we would then need to turn to other agencies for providing the direction for social changes. If we answer in the negative, then we are obliged to develop a satisfactory plan for dealing with the pressing problems that beset youth in the modern world.

In considering such a plan, attention will be given to two aspects: the general setting of democratic discussion and the techniques which should be employed. The discussion will be developed by the use of generalizations which are intended to serve as tentative guides which teachers may find helpful.

THE GENERAL SETTING OF DEMOCRATIC DISCUSSION

In many cases, the difficulties which schools encounter in dealing with controversial issues grow out of various miscon-

ceptions of the role of the school by the teachers themselves and the public, and the failure of the administration to encourage and support free discussion. While conditions vary in different communities, certain generalizations would seem to apply to all or nearly all. These will be stated and discussed briefly.

1. FREEDOM OF THE STUDENT TO LEARN, RATHER THAN DIRECT SOCIAL ACTION, SHOULD BE THE PRIMARY CONCERN OF THE SCHOOL. Learning in its best sense, involves the "continuous reconstruction of experience." Learning products are identified as changes in attitudes upon the basis of new or deeper understandings, and the acquisition of general and special abilities, habits, and skills. The learning experiences which the school provides for students are directed toward changes in behavior in line with democratic ideals and values. The school provides work experience for the student, not primarily to get the work done, but because such experience enhances growth in line with democratic values. The school provides a studio for painting pictures, not primarily for the purpose of turning out marketable pictures, but because it sees in painting, opportunities for learning—that is, for growth. If the school sets up a cooperative store, it is not primarily for service to the community but because in such an enterprise there are significant opportunities for bringing about desirable changes in behavior. In other words, direct experience serves the same general purpose as organized subject matter, in that it promotes *learning* as we have defined it above.

In contrast with this basic purpose of the school, the factory seeks primarily to turn out useful goods at a price that the public can afford to pay. Experience tends to show that this aim can be more effectively realized if workers are satisfied and happy, if conditions for continuous growth are maintained. But this, in our present form of economic organization, is a subsidiary rather than a primary objective. Governmental agencies are established to perform certain functions, to accomplish certain things, the police to maintain order, the fire department to put

out fires, the welfare department to provide appropriate living conditions. Only indirectly are these agencies concerned with learning as such.

The contrast between the primary function of the school and those of industrial and community organizations has been drawn perhaps too sharply. Perhaps if society were to become completely socialized, many of these distinctions would become blurred, but even then there would undoubtedly be a need for setting up a special agency for the primary purpose of facilitating and promoting desirable learning. At any rate, a guiding principle seems to be implicit; namely, that *the test of effective participation by the school in the life of the community, is the extent to which such participation promotes the continuous reconstruction of experience.* This would rule out purely routine participation, by means of which nothing new is learned. It would also rule out any participation that closes the door on further learning. And this has an important bearing upon one problem of dealing with controversial issues. For when the school takes sides on issues and proceeds to social action, the conditions for further reconstruction of experience are difficult if not impossible to maintain.

For the school to study the different forms of government for the community through interviews, visits to governmental agencies, and perhaps to cities having a given type of governmental organization, by the examination of leading authorities, is without doubt an excellent learning activity. For the school or group to seek by direct action to promote a change in the community's governmental structure, is to misinterpret its function, for at this stage *learning* ceases to become the primary objective. For the school to study the underlying causes of a local strike by every possible means is just good sense, for such study is necessary if students are to become intelligent. For the school to promote the cause of the strikers by sending students to the picket lines to prevent workers from entering the plant is to turn the school into an agency for promoting propaganda. All this is not to say, of course, that individual students, as citizens, should not be encouraged to take any action that seems

appropriate to them, but this is quite apart from the school as an organized educational agency.¹⁸ It may be argued by some that the role of the school as set forth in this discussion is insignificant and passive. On the contrary, such an interpretation makes it possible for the school to become a dynamic force in social reconstruction, even though it does so *indirectly* through the release of intelligence.

2. THE SCHOOL SHOULD BE DEVOTED TO THE METHOD OF INTELLIGENCE IN DEALING WITH PROBLEMS OF HUMAN CONCERN. This generalization flows naturally from the preceding discussion, for "thinking is the method of intelligent learning." To employ the techniques of problem solving, (1) defining the problem, (2) setting up hypotheses, (3) discovering, analyzing, and applying pertinent data to the hypotheses, and (4) arriving at tentative conclusions and plans of action upon the basis of the evidence, is essential in every aspect of the school program. In dealing with controversial issues, it provides the guiding principle for the teacher and students to follow. The teacher should not expect to draw a salary from the public treasury while propagandizing for his favorite beliefs. He must scrupulously provide the means for getting at the truth of a given issue, and this involves careful selection of reading materials which present differing judgments and opinions, providing for interviews with individuals representing differing viewpoints, selecting audio-visual aids that provide some balance, and, in general, maintaining such conditions as will keep open the free play of intelligence. This does not mean that he may not take sides or present his own point of view, for he is obligated to do this. It does mean, however, that he should not "load the dice" in such a way that the students are led to regard the teacher's opinions as having more weight than any other authority. Intelli-

¹⁸ Undoubtedly schools have the obligation to cooperate with appropriate agencies in action directed toward maintaining good conditions for learning within the school. It should, for example, work through appropriate channels to provide good community health and recreational facilities. For a good illustration of such action, see: *The Parker High School Serves its People*. Southern Association Study. Greenville (S. C.), Parker District Schools, 1942, pp. 60-78.

gence cannot operate in an atmosphere charged with coercion. Furthermore, the school can win the confidence of the public only to the extent that it succeeds in convincing the public that teachers and students, when they deal with controversial issues, do so as a serious and unbiased quest to discover the truth concerning such issues.

3. THE SCHOOL SHOULD APPEAL TO THE PUBLIC TO HELP SAFEGUARD ITS RIGHT AND OBLIGATION TO DEAL WITH CONTROVERSIAL ISSUES. In a final analysis, the public will decide what the school is to teach. It will elect boards of education pledged to carry out its wishes. These boards, in turn, will appoint school officials congenial to their purposes. Therefore, any policy for dealing with controversial issues will ultimately be sanctioned or rejected by the people of the community.

But the fact that controversial issues exist at all implies that the public is divided, not necessarily into two opposing factions, but rather into many groups representing many shades of opinion. For example, in most communities can be found many differing religious beliefs ranging from extreme fundamentalism to atheism. Likewise, attitudes on capital and labor range from belief in the complete domination by the employer to just as complete domination by the labor unions. It would not be difficult to find in any community extreme isolationists, ardent internationalists, and many other people whose views would fall somewhere between the two extremes. Furthermore, the tradition of freedom of thinking and of speech is deep-seated in the American people. The desirability of settling differences through conference and discussion is well established.⁴ Consequently the social climate is potentially congenial to freedom of discussion. Through appropriate leadership this potentiality can be converted into actuality. The success and popularity of public forums and "town meetings" is evidence that this is true.

It is to this tradition of democratic discussion that the high

⁴ For example, see a study entitled: "What People Think About Youth and Education," *Research Bulletin of The National Education Association*, XVIII, 188-218 (Nov., 1940). The study reports (p. 197) that "A majority of all groups favor free consideration of controversial topics by youth groups."

school must appeal for the right to deal with controversial issues, limited, of course, by the interest and maturity of the students. But the school must come to the public with this appeal with clean hands. The school must be able to demonstrate its competency to deal fairly with issues. The success of such an appeal involves, perhaps more than any other factor, confidence in the teaching staff. If teachers give the public evidence of bias through alliances with pressure groups, it is unlikely that public support can be won. Some educators argue that teachers should identify themselves with community groups which give promise of achieving the objectives which they hold. For example, Watson concludes that:

1. Every teacher should participate in a study of the social characteristics, history, organizations, and life of the various groups of people in the community where he teaches.
2. Every teacher should participate in a group composed of persons from other occupations, living in the same community and sharing some common social objectives.
3. Every teacher should, in cooperation with other people: (a) analyze the community to discover its most fundamental needs; (b) analyze the social forces which give promise of sufficient strength to make the necessary changes; and (c) find his own action program in relation to these needs and forces.⁵

Watson leaves no doubt in the mind of the reader as to the groups in which the teacher should participate, for he points out:

There are in every community forces of progress and forces of reaction. There are creative individuals and there are organizations gaining strength. Other institutions are redolent of decay and decline. There are persons, customs, and organizations which echo only the old stereotypes. These are holding tight but going nowhere. A teacher who wants to help a community move forward must avoid getting caught within the social pressures of stagnant groups. In our generation there are bankers, bridge-players, wealthy, unemployed, D.A.R. Chapters, and real-estate speculators who will seldom or never prove dynamic forces in the creation of new social forms. Artists, thinkers, youth groups, farm unions, consumer cooperatives, scientific societies, and above all perhaps organized labor, have great

⁵ Goodwin Watson, in *The Teacher and Society*, William H. Kilpatrick, ed. New York, D. Appleton-Century Company, Inc., 1937, p. 255.

potential power. Their tide is coming in. The rise may be slow and at any one place the waves may recede temporarily, but there can be no other outcome. In the long run the creative organized workers can do what they will.^a

If the teachers of a given community, as a group, were to follow the implications of the above quotation, what is the probability that the community would have confidence in their fitness to deal objectively with controversial issues? Certainly large sections of the population would have grounds for the suspicion that issues were being brought in for the purpose of indoctrinating particular points of view held by the teacher.

No one can object to teachers as citizens identifying themselves with community forces that are congenial to their point of view. All too often teachers take no part in community activities of any sort, and this is to be deplored. But the above appeal is made to teachers as a class, and this is quite a different matter, for it proposes to identify teachers with one side of the so-called class struggle.

Given assurance by precept and example that the school will use every means at its disposal of applying the method of intelligence to social issues, will the public permit such discussion? This is an open question, and we must admit the presence in every community of powerful pressure groups that seek to indoctrinate their points of view and are not interested in having all sides of issues presented. In some communities, these forces may prevent such discussion, and we have abundant illustrations of situations where this has occurred. Nevertheless, the school is obligated to continue to try to create a climate of opinion congenial to the idea, and to deny the possibility of achieving it is to deny the ultimate triumph of democracy.

One agency which the school cannot afford to overlook in this appeal is the community council which ideally represents a cross-section of public opinion. Here the representatives of public education may work shoulder to shoulder with representatives of other institutions and agencies in planning for the improvement of community living. Ways in which students and

^a *Ibid.*, p. 249.

teachers may participate *educatively* in formulating plans and carrying them into effect are many and varied. One illustration will suffice.

In the Abraham Lincoln High School of Los Angeles a Junior Coordinating Council has been formed. This council "is increasingly working with an adult group known as the Community Coordinating Council. The latter group is made up of representatives of the schools, the churches, the P.T.A., the city recreation department, the branch library, the Lincoln Heights Chamber of Commerce, and a number of other agencies concerned with the general welfare of the whole area."⁷ Through this coordinating council, the students serve the community in various ways: "Some go to hospitals to teach handicraft to patients and to give programs for shut-in children. Some supervise playgrounds for smaller children, and teach them music and handicrafts after school. Some tell stories to very young children and run toy loan libraries. Some lead clubs for younger boys and girls."⁸ Such participation by the school in the life of the community does not, of course, guarantee that the community will support the full and free discussion of controversial issues, but it affords a means and avenue for developing understanding.

Other cross-section community groups such as the luncheon clubs, the parent-teacher associations, and other social and civic groups may give the school much assistance in reinterpreting to the public the functions of the school.

4. AN IMPORTANT FUNCTION OF SCHOOL ADMINISTRATION IS THE PROTECTION OF THE TEACHERS, WHO SEEK EARNESTLY TO PROMOTE FULL AND FREE INQUIRY, FROM THE PERSECUTION OF PRESSURE GROUPS THAT OBJECT TO SUCH INQUIRY. Free discussion will be most successful when it has been made an explicit matter of school policy. In a democratically administered

⁷ *Learning the Ways of Democracy*. Educational Policies Commission. Washington, Educational Policies Commission, 1940, p. 274. Readers interested in the participation of the school in the life of the community will find this book very valuable.

⁸ *Loc. cit.*

school, the formulation of such policy will be the concern of the teaching staff in cooperation with the administrative officers and the board of education. Such action makes it possible for the school to maintain a united front in support of teachers who incur the displeasure of special-interest groups. The administrator then becomes the official representative of the teaching group, and in any action he has the backing of the teachers and the board of education. Obviously this makes the administrator's task much easier, and enables him to perform it more successfully.

But even if the school is not administered democratically, the administrator still owes the teachers the obligation to protect them in the exercise of their legitimate functions. If he fails to do so, all the high-sounding platitudes about academic freedom will be of little avail. There can be no academic freedom for teachers if administration does not stand resolutely back of the teachers. On the other hand, the administrator is also charged with the responsibility of protecting the public against propaganda by the teachers. In this task, too, he should have the support of the teaching group.

SOME TECHNIQUES OF DEMOCRATIC DISCUSSION

Obviously, the success of any plan for dealing with controversial issues will depend upon the techniques which teachers use in promoting democratic discussion. The following generalizations are suggested as guide lines which the teacher may find helpful.

1. **THE ISSUES SHOULD GROW OUT OF THE EVOLVING LEARNING SITUATION.** Thinking begins where there is a "forked road" situation in which the learner must stop and take his bearings before proceeding on his way. Likewise, issues do not ordinarily come ready-made to be handed out by the teacher for discussion. More frequently they arise in the process of planning or exploration. Thus in a discussion of Steinbeck's *Grapes of Wrath*

reported by Salt,⁹ the students hit upon the conflict between capital and labor over the right of the employer to hire and fire his employees. This turn of affairs, certainly not planned in advance by the teacher, provided a normal setting for a discussion of a problem which directly affected the students. The discussion of the book became of secondary concern, though the teacher saw to it that the book was not forgotten.

This does not mean, of course, that the teacher is not free to raise issues if the pupils fail to do so. As a matter of fact, he is obligated to help the students to see all of the significant implications of the learning situation. Thus, in a discussion of the theory of evolution as applied to human beings, the issues involving science and religion might appropriately be raised by the teacher at the proper stage of development. So long as the students accept the issue as being important for them to explore, it does not matter who raises it.

2. THE DISCUSSION SHOULD BE SO PLANNED AND ORGANIZED AS TO BRING OUT AS MANY DIFFERING POINTS OF VIEW AS POSSIBLE. One of the weaknesses of the debates that are so frequently the major discussion activity of the high school is the fact that only two sides are presented. This is what one writer calls "the two-valued orientation." Undoubtedly, these debates frequently result in warped points of view because of the form in which the propositions are cast, and the established technique of dealing with them. Hayakawa points out that:

Except in quarrels and violent controversies, the language of everyday life shows what may be termed a multi-valued orientation. We have scales of judgment. Instead of "good" and "bad," we have "very bad," "bad," "not bad," "fair," "good," "very good"; instead of "sane" and "insane," we have "quite sane," "sane enough," "mildly neurotic," "almost psychotic," "psychotic." If we have only two values, for example, "law abiding," and "law breaking," we have only two ways of acting toward a given legal situation, the former are freed, the latter are, let us say, executed. The man who rushes a traffic light is, of course, under such a dispensation, "just as much a law

⁹ George Salt, *Thinking Together: Promoting Democracy Through Class Discussion*. Pamphlet No. 6. Chicago, National Council of English Teachers, 1943, pp. 14-18.

breaker as a murderer," and will therefore have to get the same punishment. If this seems absurd, one has only to recall the medieval heresy trials in which the "orthodox" were freed and the "heretics" put to death, with the result that pious men who made slight "theological" errors through excess of Christian zeal were burned to as black a crisp as infidels or desecrators of the church.¹⁰

For most people political questions have only two sides. As a matter of fact, under a two-party system, the voter is reduced to expressing his preference for one of two candidates, and if he isn't very careful he will be led to believe that one represents the good, and the other the bad, with no middle ground. Our present-day judicial system of dealing with criminal offenses, in which the accused is found "guilty" or "not guilty" encourages the "either-or" type of thinking, even though indeterminate sentences and degrees of guilt are now an indispensable part of our system of administering justice.

Clearly, the "multiple-valued" orientation promises more for arriving at sound decisions, and teachers and discussion leaders should use every possible means of encouraging the exploration of all fruitful hypotheses. This important point suggests that the conventional debate should give way to group discussions involving the entire class, forums, round tables, and panels.

3. GOOD DISCUSSION REQUIRES THAT PROBLEMS, WORDS, AND TERMS BE CLEARLY DEFINED. Obviously, if there is no agreement upon the meaning of such words as democracy, communism, and fascism, there can be no worthwhile discussion of conflicting political ideologies. These words are all high-level abstractions for which it is difficult to find referents.¹¹ Until

¹⁰ S. I. Hayakawa, *Language in Action*. New York, Harcourt, Brace and Co., 1939, p. 172. See also Boris Bogoslovsky, *The Technique of Controversy*. New York, Harcourt, Brace and Co., 1928.

¹¹ For example, see Stuart Chase, *The Tyranny of Words*. New York, Harcourt, Brace and Company, 1938. Committee on the Function of Languages in General Education, *Language in General Education*. New York, D. Appleton-Century Company, Inc., 1940.

I. A. Richards, *Interpretation in Teaching*. New York, Harcourt, Brace and Company, 1938. Harold Fawcett, *The Nature of Proof*. New York, Bureau of Publication, Teachers College, Columbia University, 1938.

fairly recently, high-school students received little training in defining terms except in the areas of mathematics and science, and in these fields there was very little carry-over to other fields of knowledge. The present-day emphasis upon general language, the nature of proof, and semantics has pointed the way to new possibilities of increasing the effectiveness of instruction.

The difficulty of conducting successful discussions of race questions is a good illustration of the necessity for defining terms. In this area, many words such as Negro, Jew, or Jap have emotional connotations which interfere with clear discussion. The individual has acquired in unaccountable ways abstract meanings of such words without having examined them in terms of reality. A discussion that proceeds from such a basis gets nowhere because the terms used are quite divorced from the everyday world of fact. It is the business of the leader, usually the teacher, through appropriate questioning to get students to define and illustrate the terms they use. Salt reports an interesting discussion which grew out of a statement by one of the boys in the class that he hated Jews. In the discussion that followed, it developed that "no one had really hated any individual who might be called by the name of Jew, Negro, or Italian."¹² Through careful questioning, the students were led to see that their hatreds were directed toward abstractions rather than toward individuals.

4. GOOD DISCUSSION REQUIRES THAT PERTINENT DATA BEARING UPON THE ISSUES BE AVAILABLE AND UTILIZED IN ARRIVING AT DECISIONS. Perhaps the one thing that brings discussion into disrepute with teachers and students is the continued expression of opinion without supporting data. Such discussions usually resolve into name-calling and accomplish nothing. If the discussants, for example, are not in possession of the known facts about "race superiority," they are hardly in a position to make judgments about the comparative native intelligence of Negroes and whites. If the discussants have not read widely the literature dealing with public ownership or control of utilities, they are

¹² *Op. cit.*, p. 23.

hardly in a position to reach worthwhile decisions. Here the discussion leader is obligated to keep pressing for the use of significant data, the weighing of authorities, and the suspension of judgment until as much as possible of the evidence is in. Hasty judgments in class discussions tend to perpetuate that failing which is so characteristic in life outside the school. All too frequently the teacher unconsciously contributes to hasty conclusions, because he fears that he is not "covering ground." The teacher will have to decide to sacrifice certain traditional values if he expects to help his students to do clear thinking upon pertinent problems.

5. THE DISCUSSION LEADER SHOULD TRY TO SECURE THE WIDEST POSSIBLE STUDENT CONTRIBUTIONS TO THE DISCUSSION. . . Very commonly group discussions fail because the contributions of all members of the group are not elicited. Stenographic reports of discussions frequently reveal a tendency on the part of the teacher and a very few students to do all or nearly all of the discussing. This is especially true when the discussion is "forced" by the teacher, and is of no particular concern to the majority of the students. The teacher comes before the class and says, "Today let's have a discussion of the causes of the Civil War." What he really wants is to find out whether or not the students have read the textbook. The loquacious students respond readily, and for emphasis the teacher repeats their answers, improving on them if possible. Very soon the topic is exhausted and only a few students have participated at all. The difficulty, of course, is that the students are not facing a problem that is vital to them, and they therefore feel no particular urge to participate except that participation may improve their monthly grades. The situation is quite different when the discussion has been planned cooperatively in advance, and when students feel that they have a unique contribution to make to the solution of the problem. In this case, the responsibility of the teacher shifts from having the students "recite," to leading the discussion in such a way that all have an opportunity to contribute and conclusions are reached, however tentative they may be.

6. GOOD DISCUSSION REQUIRES THAT DECISIONS OF INDIVIDUALS AND GROUPS BE RESPECTED. Democracy cherishes respect for human personality and this means, among other things, that the teacher is bound to respect the decisions which students reach through discussion. The spirit of free inquiry assumes that the solution of problems is to be determined by the use of the method of intelligence. There can be no preconceived solution. The teacher may well be disappointed in the outcome, if it doesn't agree with his own thinking, but he violates the method which he professes to cherish if he tries to impose his own conclusions on the group. If he does this, he is merely inviting his students to *play* with the forms of democracy, and students are quick to discover that they are expected to do nothing more than that. The teacher should be disappointed if he does not succeed in getting his students to solve their problems by the use of the method of intelligence. Certainly he is justified in protecting the conditions for reaching intelligent conclusions, and he may again and again insist upon an examination of all available data, but beyond that he cannot go, if he is to continue to have the respect of his students. And this holds for the decisions of individuals and minority groups as well as for those of the majority. Where the decision involves group action of some sort, of course the minority must conform to the majority decision, for that too is a part of democratic living. For example, if after careful and extended study the majority of the senior class decides that Quebec meets more of the criteria of a good trip than does New Orleans, the best interests of the class would undoubtedly be served if *all* students conformed to the group judgment. If, on the other hand, the class were trying to arrive at a conclusion concerning a local capital-labor dispute, all shades of judgment should be cherished and respected.

SUMMARY

The teaching of controversial issues is inseparably related to the ideals and values of democratic living. Therefore, if the school ac-

cepts as its supreme obligation the progressive enrichment of living, it must insist on its right to deal fairly with every significant controversial issue that is of interest to students, and at their maturity level. Along with this right must be placed the obligation to refrain from propagandistic activities, which are certain to undermine the confidence of the community in the integrity of the school.

Close cooperation with community groups is essential to good understanding, but the school should not forget that its primary obligation is to promote desirable changes in the behavior of the students rather than to serve the community directly.

The right of the school to deal with controversial issues can be safeguarded if teachers practice satisfactory techniques of discussion, and if their relationships with the community, indicate their competence to deal with important issues with which the community is concerned.

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PART V

THE SCHOOL AT WORK ON THE CURRICULUM

A PROGRAM FOR CURRICULUM REORGANIZATION IN THE HIGH SCHOOL

IN PRECEDING CHAPTERS THE VARIOUS PROCEDURES IN CURRICULUM reorganization have been discussed. But knowledge about curriculum making is of little value unless it is put into actual use in the teaching situation. Many of the suggestions for improving the curriculum which have been made could be utilized by the individual teacher, even though no general program of curriculum reorganization is carried out by the school in which he teaches. He can improve and refine his philosophy. He can study his students in order to determine their needs. He can introduce new materials such as supplementary reading and audio-visual aids. He can improve his discussion techniques. As a matter of fact, the teacher's growth is largely dependent upon the intelligence which he brings to bear in improving his own teaching situation. However, there are limits beyond which he cannot go without the cooperation of his colleagues on the staff and the administrators of the school. If he changes his program too radically, he is bound to run head-on into conflicts.

A school which operates upon the basis of individual freedom

for the teacher with little or no concerted planning and action loses its finest opportunity to live democratically, and to refine its program through the pooling of the intelligence of all members of the staff. This final chapter is devoted to suggestions as to how the teaching staff may work cooperatively on the improvement of the program.

CURRICULUM REVISION A CONTINUOUS PROCESS

The school which is alert to its responsibility for meeting the needs of youth is engaged continuously in the process of curriculum reorganization. Every time a teacher utilizes new materials, plans with students for new types of learning activities, or finds new resources for making learning more effective, he is engaging in curriculum reorganization. And when all teachers are so engaged in terms of a common philosophy, common purposes, and a curriculum design cooperatively determined, curriculum reorganization becomes a continuous process. Unfortunately, such optimal conditions do not exist in many schools. Teachers have not been led to operate in terms of a reasonably common philosophy. The design of the curriculum has been handed down by those in authority. The teacher fits into the groove provided for him without asking embarrassing questions. He is "given" his curriculum in the form of a textbook. Obviously when such a situation exists, there is need for a concerted period of study and planning leading to relatively drastic changes. But whether there is continuous planning, or relatively little planning, every school should have periods of "stocktaking," for re-examining its philosophy and curriculum to the end that its resources may be used most effectively. Succeeding sections of this chapter are designed to help the school to plan such a program.

ESTABLISHING A NEED FOR A RE-EXAMINATION OF THE PHILOSOPHY AND PROGRAM OF THE SCHOOL

The fact that administrators and teachers are frequently not aware of inconsistencies between theory and practice is well

known. Often they do not realize that curriculum changes are needed. The program has been "accepted" by the community without much criticism. The children of the influential people in the community go on to college and succeed. What happens to the children of less influential groups tends to be ignored. Before much can happen to change the situation, there must be developed a "conviction of sin." One way for a school staff to bring this about is to ask itself some searching questions about its program. Perhaps the place to begin is with the question of its basic philosophy. It needs to inquire seriously as to whether or not it is operating in terms of a conscious, articulate, and consistent set of values. But if philosophy is really to "bake bread," it must permeate the total life of the school. One way to determine whether the school's philosophy is mere "window dressing," rather than an effective guide to action, is to look at various aspects of the program. The following criteria¹ are intended to offer some suggestions as to the kinds of questions that a school staff might ask itself. They might be studied by the staff as a whole or by working committees. In either case, several faculty meetings might be devoted to general discussions of the findings of the various faculty members or groups. These criteria should also be applied periodically to the reorganized program.

DOES THE SCHOOL STAFF AS A GROUP PERIODICALLY RE-EXAMINE ITS BASIC PHILOSOPHY AND STATEMENT OF PURPOSES? In Ohio, and possibly in other states, a

¹ The author acknowledges indebtedness to the following members of seminar groups who gave valuable assistance in formulating the criteria: Glenn Austin, Richard Bell, Ralph Pounds, Ralph Purdy, and Vernon Zeig. See Harold Alberty, "A Plan for Developing a Philosophy of Education for the High School," *Educational Research Bulletin*, XXII, 199-210 (Nov. 10, 1943). The author has drawn heavily upon this article in the preparation of this chapter. For another plan for evaluating the program of the high school, see: *Evaluative Criteria*, Washington, Cooperative Study of Secondary-School Standards, 1940. *How to Evaluate a Secondary School*, Washington Cooperative Study of Secondary-School Standards, 1940. Dan H. Eikenberry, et al, *The Ohio Plan of Using the Evaluative Criteria*, Columbus, Ohio, High-School Principals Association, 1942. *A Study of Inservice Education*, Chicago, North-Central Association, 1944. *Learning the Ways of Democracy*, Washington, Educational Policies Commission, 1940, Chapter IX, "Where Stands Your School?"

requirement of continued accreditation is that a statement of the philosophy of the school be filed with annual reports. Experience has shown that in many cases this is not done. In others, the same statement is filed year after year without any revision. In far too many cases, when a statement is filed, it has been formulated in the principal's office without the active cooperation of the teaching staff, of the pupils, to say nothing of the community. Obviously, such a statement has little or no effect upon instruction and by no stretch of the imagination could it be considered to be a statement of the actual values which guide the educative process in the day-to-day activities of teachers and pupils.

The business of philosophy making is a long, arduous, and never-completed task which should engage the best thinking of all concerned with the educative process. Hence, it is important to examine the thinking that has been done and is now being done by the teaching staff on this important problem.

IS THE TEACHING STAFF AS A WHOLE IN SUBSTANTIAL AGREEMENT UPON SUCH ISSUES AS THE MEANING OF DEMOCRACY, THE NATURE OF THE INDIVIDUAL AND OF LEARNING, THE RELATIONSHIP OF THE SCHOOL TO THE COMMUNITY AND THE WIDER SOCIAL GROUP?

Certainly it is not to be expected that all members of a teaching staff shall be in complete agreement upon all philosophical issues. Indeed, there should be a place on the staff for those who disagree rather sharply with the conclusions of the group. Free expression, even though it runs counter to generally accepted beliefs, is essential to democratic living. However, if the school is to carry on as a school, there must be common ground upon which all may meet and participate in group thinking and action. Such agreements and disagreements cannot be discovered and utilized for the improvement of school practices unless there is a definite program designed to promote full and free discussion and decisions, arrived at cooperatively. It is only upon this basis that inconsistencies in practice can be discovered and corrected.

ARE THE PURPOSES OF THE VARIOUS AREAS OF THE SCHOOL CONSISTENT AND UNIFIED? It is not infrequent that serious inconsistencies in purposes and programs are to be found among the various areas of the school. Professional meetings for purposes of curriculum thinking are held by departments without taking into account the entire school program. This is furthered, too, by the adherence to textbooks which are followed slavishly. These are written by authors who have widely differing points of view as to what education is all about. For example, the social-science department may be committed to teaching logically organized history for the primary purpose of transmitting the cultural heritage, while the efforts of the practical-arts area are primarily directed toward orienting the student in the life of the home and community, and in improving that life. Another example is a strong emphasis upon cooperative living in the social-science area, and a program in physical education that stresses extreme competition on the grounds that life outside is dominated by the competitive spirit and students should be prepared to hold their own in a highly competitive world. It must be pointed out, too, that the community frequently aids and abets this spirit by demanding that athletic coaches win games.

Frequently it will be found that the practices of the school are inconsistent at different levels. For example, first-hand experiences, unified activities, and teacher-student planning are stressed at the elementary level, while in the high school the student is fitted into a stereotyped program involving small segments of knowledge, with little or no emphasis upon the development of group planning and purposing, or upon seeing experience in terms of unified wholes.

Many of these inconsistencies and contradictions will be brought to light if the school honestly tries to apply this criterion to its program.

DOES THE SCHOOL PLANT AND EQUIPMENT FACILITATE THE CARRYING OUT OF THE AVOWED PURPOSES OF THE SCHOOL? School buildings, particularly at

the secondary level, have been constructed without giving much thought to the purposes of education. They are places where students come to listen, to have knowledge "poured in," rather than where pupils can grow and develop through first-hand experience. The contrast between buildings functionally designed, as places where students may live, and those box-like structures consisting of uniform "class" rooms planned by so-called "efficiency experts" is startling.² In the case of grounds, the situation is even worse. Magnificent stadia, which leave no space for school gardens, is evidence of preference for a certain set of values. A "progressive" school known to the writer boasts of its "activity" program but provides no place for the raising of either plants or animals.

Fixed seats and desks, libraries remote from classrooms, laboratories equipped to develop specialists, fine and practical art studios completely isolated one from the other, basement rooms unfitted for the carrying on of student activities, "recreation" rooms designed principally for "sitting and talking" are all too common in the American high school. They imply a certain conception of the purpose of education and the nature of learning, however, and should not be accepted without examination. Frequently, no connection is seen between the functions of education and the facilities provided for carrying them into effect.

It is true that teachers can do little about some of these things, but until teachers and administrators become conscious of the fact that the physical plant is really important in terms of a philosophy, little will be done to improve the situation. Certainly they can prevent the mistakes of the past from being perpetuated indefinitely.

ARE THE TEXTBOOKS, STUDY MATERIALS, AND METHODS CONSISTENT WITH THE EXPRESSED PHILOSOPHY OF THE SCHOOL? Many a school that claims that one of its chief purposes is to teach students to think

² The practice of making elaborate building surveys and plans for new buildings without giving adequate consideration to the purposes which the buildings are to serve is still common.

reflectively, negates the realization of it by the instructional materials that are in current use, and the classroom methods that teachers employ. Where the textbook, no matter how excellent, is followed blindly, problems out of which thinking is supposed to arise are apt to be problems for the teacher or the writer of the textbook rather than for the student. The so-called "problems" are merely convenient ways of grouping facts and information to be memorized. If students are to be trained to think, they must work on problems that are of vital interest to them and must be provided with an environment that stimulates them to find their own solutions. Thus, textbooks and other materials play a significant, but not a primary role. Effective methods of teaching will, to some extent, overcome the handicap.

IS THE CURRICULUM OF THE SCHOOL EFFECTIVE IN HELPING STUDENTS TO MEET THEIR NEEDS, EXPLORE THEIR ABILITIES AND EXTEND THE RANGE OF THEIR INTERESTS? The teaching staff of most high schools would insist that a basic tenet of its philosophy was to deal effectively with the needs, abilities, and interests of students. But if a school is to do more than pay lip service to such a purpose, the curriculum must be adapted to it. Frequently this is far from being the case. It is not difficult to find schools that send only a small percentage of their graduates to college, with curriculums which stress college preparation almost exclusively. In one school familiar to the writer, about ten per cent of the graduates attend institutions of higher learning, yet eighty per cent of the students pursue the traditional college-preparatory course. The offerings in fields other than college preparatory are meager; hence the student has little choice in what subjects he will pursue. The boys who graduate from this school work in factories and mills, drive trucks, or work on farms. The girls do housework, work in restaurants, care for children, marry early and usually have large families of their own. As preparation for these callings, they are "given" Latin, French, higher mathematics, and abstract science! This is, of course, an extreme case, but to a greater or less extent is typical of the situation in many

schools. Yet these schools would subscribe readily to the philosophy expressed above.

The school is, of course, not always to blame for these conditions. Frequently the cause lies deeper. The community may be traditionally minded and antagonistic to educational reform. It insists upon a type of education which it believes contributes to upward mobility even though it fails to meet the needs of its youth.

Frequently communities are indifferent or insensitive to the aesthetic aspect of living—evidence of which is to be found in the dilapidated, unpainted buildings, dirty streets, and the complete absence of parks and other recreational facilities. It is not surprising that schools in such communities offer no instruction in fine art. What is the role of the school in these communities? Is it to follow the traditions of the community or to lead in the reconstruction of values? The school must decide, and the decision will raise significant questions that will have to be faced.

IS THE PROGRAM OF SCHOOL RELATIONSHIPS DETERMINED BY A WELL-DEVELOPED PHILOSOPHY THAT GIVES UNITY TO THE LIFE OF THE SCHOOL-COMMUNITY? It would be difficult to find a school that did not subscribe philosophically to the idea that the program should be an integral part of the community, utilizing to the full the resources of the community in terms of material and personnel, and in turn applying its own resources to the problems of community betterment. Yet, in practice, the school often remains as an institution apart from the vital problems of living. It is bookish, academic, and socially ineffective. Community health and recreation, governmental and social agencies, economics and industrial life are far removed from what goes on within the four walls of the school. Expediency, a desire for security, tradition, rather than a set of values, determine the policy. By skillful manipulation, the principal succeeds in preventing the parent-teacher groups (which in practice turn out to be small groups of conscientious mothers) from studying vital school problems, by having them concentrate their energies on raising money for

the school. Only when a school bond issue, or increased tax levy for school purposes is before the public is it remembered that children have parents!

Very frequently the teacher is hardly recognized by community leaders as a person, much less as a member of the community. Plans for community improvement are made and carried out without even a thought as to the potential resources of the school which might be utilized. Only when the school can be used to further private ends is it remembered. The banker increases his clientele by inaugurating thrift campaigns, the industrial group wants its pamphlets used in social-science classes, the local patriotic groups expect the children to march in the parade. The young business men want to use the school gymnasium for basketball. But the spirit of full and free participation upon the basis of common concerns is not a factor in these things.

World War II with its Civil Defense Councils upon which school people frequently held membership, taught new possibilities for vital school-community relationships. Participation in setting up the sugar-rationing program was frequently the means of discovering vital information about parents. Scrap drives, besides giving students a sense of adequacy in social action, yielded valuable data concerning standards of living and community values. The sale of stamps and bonds was more effective in teaching true devotion to democracy than a detailed study of the Revolutionary War, or memorization of the preamble of the Constitution. Peacetime should provide equivalents of these socializing activities which were carried out under the stress of war. Health and recreation surveys, clean-up campaigns, community forums may yield opportunities for significant participation and the development of a sense of unity.

DOES THE SCHOOL PROVIDE ADEQUATELY FOR DEMOCRATIC LIVING ON THE PART OF STUDENTS, IN ACCORDANCE WITH ITS AVOWED ADHERENCE TO DEMOCRATIC VALUES? Social sensitivity, cooperativeness, and reliance upon the method of intelligence are fairly

common values to which schools subscribe. How do they provide for the development in students of ways of behaving that foster these values? Here it is not necessary to give many specific illustrations of inconsistency and the lack of a dynamic philosophy that really affects the life of the school. Some schools throw the burden of student participation upon the program of club activities and the student council, leaving the curriculum and classroom procedures essentially autocratic. Often teachers are admonished to "think," without providing the environment that calls for and rewards thinking. Students are taught to respect minority and racial groups, while at the same time the school practices intolerance toward such groups in planning the social life of the school. Sometimes these inconsistencies are due to a policy of autocratic administration. More often they are due to a lack of understanding of the meaning of democracy in the classroom.

The school needs to make a searching examination of its practices to determine whether they are the implementation of a philosophy that really expresses the appropriate social outlook, or merely the results of traditional thinking, or expediency.

IS GUIDANCE AN INTEGRAL PART OF THE TOTAL INTERRELATED SCHOOL PROGRAM, OR A FUNCTION WHICH HAS GROWN UP IN ISOLATION? It is well known that guidance sprang up in response to a demand that the school take some responsibility for the out-of-school placement of students on jobs. This led to an emphasis upon vocational guidance, which consisted of advising with students concerning school programs and opportunities in the various vocational fields. The success and popularity of this important function gradually led to the extension of the idea to assisting students in solving *all* problems which they faced, whether in the field of personal living, social relationships, or economic life. On the face of it, this movement certainly has much to commend it for it provides for a neglected emphasis.

Why was the emphasis necessary? Are not the day-to-day activities of pupils in and out of the classroom intended to help

the student solve his problems and meet his needs? The answer, of course, is to be found in the traditional purpose of the school as a preparation for future adult living through the mastery of logical systems of knowledge. The teacher was so busy "covering ground" that no time or opportunity remained for the students' real problems. A study of Caesar's Gallic Wars helped little in an understanding and interpretation of the problems of compulsory military service. A study of the Roman aqueducts threw little light upon the local community water supply that affected the immediate life of every pupil. A study of conventional chemistry had no relation to the purchase of economic goods. Traditional mathematics was far removed from the problem of budgeting the personal allowance. The "guidance" program cared for these things without interfering with units of credit, lessons to be learned, books to be covered. To be sure, the illustrations are extreme, but the school needs to ask itself seriously whether its guidance program fosters the perpetuation of traditional curriculum content and procedures by making it unnecessary to study the ways in which the curriculum could be made to help students solve their problems; or whether it actually is so organized as to transform the life of the school.

ARE TESTS, EXAMINATIONS, AND STUDENT-ACCOUNTING PRACTICES CONSISTENT WITH THE BASIC PHILOSOPHY OF THE SCHOOL? If we take for illustrative purposes the values suggested above—namely, social sensitivity, cooperativeness, reliance upon the method of intelligence, and add to them such aspects of the democratic personality as tolerance, creativeness, and the like, as representative of the avowed values to which the school subscribes, we may then inquire how the school tests for these values and records progress toward their achievement. Do the standardized and teacher-made tests even purport to evaluate pupil progress in these aspects? Does the single letter or percentage grade in each subject studied, recorded in the student's folder and sent to his parent, represent the acquisition of these ways of behaving? Is the intelligence quotient of the student regarded as a partial diagnosis of the

difficulties that the student has which may be remedied, or as a fixed and final appraisal of his abilities?

Fortunately, there are many fairly well validated practices in evaluation that are consistent with modern theory, but they have not yet found their way into large numbers of schools. The first step toward improvement lies in a realization of the need for a change in the program. A searching examination of the philosophy in relation to school practice should lead to a desire for finding better ways of dealing with this important aspect of the program of the school.

The criteria set forth and discussed briefly are not, of course, complete. Schools will find many other ways of establishing a need for a re-examination of their practices. In many cases, schools already are aware that their programs are full of inconsistencies and need to take no time in listing or discussing them.

PLANNING FOR THE IMPROVEMENT OF THE PROGRAM

After the teaching staff has made a searching examination of its program and has discovered the points at which improvements need to be made, a plan needs to be developed for the purpose of bringing about needed reorganization. In the discussion which follows, the assumption is made that a need for a thorough-going curriculum-development program has been discovered. What possible steps should be taken in organizing the teaching staff for effective work?

FORMULATING THE PHILOSOPHY OF THE SCHOOL. The formulation of the school's philosophy is the initial step in curriculum development. In a real sense, the philosophy determines the kind of learning activities that are to be provided and the manner in which the school program is to be carried on. Without a clarification of the common values held by teachers and administrators, curriculum development programs can have little effect upon desirable growth. There can, of course, be some "tinkering" with the curriculum. Superficial changes may

be made in grade placement of subjects, additional courses may be offered. New textbooks may be adopted. But unless there is a clear sense of direction, fundamental improvements are not likely to be made.

In developing the philosophy of the school, it is necessary to organize the staff for a study of the problem. There are many factors which need to be taken into account. After all, the plan should be adapted to the size of the school, its peculiar organization, the time available for professional activities, and the ability of staff members to work effectively. Whatever plan is adopted, it is important that *all* staff members play a significant role in terms of their various abilities and interests. Otherwise, those members who do not share in the project are not apt to accept the results as being applicable to them. As a matter of fact, it often happens that such staff members may be openly antagonistic. At any rate, those who do not participate do not share in the values that come when faculty members work on a common problem.

Many administrators and leaders make the mistake of feeling that the development of a philosophy is a disagreeable task to be gotten out of the way as soon as possible, so that they may "get down to something useful" as soon as possible. This view, of course, is fallacious. In the first place, it is one of the most important ways of improving the program, and in the second place, it is really a task that is never finished, for periodic examination and improvement are necessary. The desire to complete the task hurriedly often leads to undesirable short cuts. The staff may decide to accept, perhaps with slight modification, a statement worked out by someone else that "sounds well." This, of course, means little more than a verbal acceptance that will not influence practice. Another favorite scheme is to build a composite statement by "putting together" fragments gleaned from various sources. Nothing short of a careful, long range study will be more than a purely superficial affair to be exhibited to state inspectors, or to provide an introduction to the course of study.

In small or medium-sized high schools, it may be desirable

for the faculty to work as a group through a series of general faculty meetings, with such division of labor as may be agreed upon from time to time. In larger high schools, the most feasible plan might be to select a small representative "philosophy committee" composed of faculty members who have a particular interest in the problem. This committee would be charged with the responsibility of making the preliminary investigations and formulating a tentative draft of a statement. The success of this plan will depend upon how effectively the committee secures help from every faculty member, and upon its ability to carry along the entire faculty with its findings. There is serious danger that such a committee will do all of the work, and as a consequence the principal values of in-service education of the teaching staff are lost.

SOME GUIDING CONCEPTS. Regardless of the way the staff is organized for the study of the problem of philosophy, there are certain basic considerations which need to be taken into account as a point of departure, and in defining the scope of the undertaking. The following list of statements should be regarded as hypotheses for discussion rather than as principles to be followed.

1. **DEFINITION.** A philosophy of education always reflects the ideals of the culture out of which it grows. In our democratic society it is, therefore, based upon the fundamental ideals toward which we as a people are striving. In a real sense, a philosophy of education is an intelligent attempt to discover and render more significant the deeper meanings which give character to our distinctive way of life. It is the best possible interpretation of the ideals of our democratic society applied to the life of the school-community.

2. **NATURE AND IDEALS OF THE CULTURE.** Since by definition the philosophy of education reflects the ideals of the culture out of which it grows, it is necessary to understand the nature of the culture. The nature and ideals of our culture may be

discovered by an analysis and an interpretation of the historic documents of our own and other democratic peoples; by an interpretation of historical movements; through the contributions of scientists, particularly the biologist and anthropologist, and philosophers and sociologists; and through a study of the life of the immediate and wider community.

3. NATURE OF THE INDIVIDUAL. Since the purpose of a philosophy of education is to bring about changes primarily in the lives of the individuals, and secondarily, in the life of the immediate and wide community, it must take account of the nature of the individual and his relationship to society. This calls for a study of what is now known about human development, the stages of growth toward maturity, and the problems, interests, and capacities of the individual—all with special reference to the particular school in which the philosophy operates.

4. NATURE OF LEARNING. If education is to be carried on effectively under this philosophy, the formulation of the philosophy will necessitate a study of the nature of the learning process. There must be a realization of the most efficient ways of learning the understandings, attitudes, abilities, and skills required of the kind of citizens who will be most likely to further the ideals of democratic living. The conception of mind and learning which is accepted will have profound implications for curriculum construction and teaching practices involved in carrying out this purpose.

5. STAFF PARTICIPATION. The philosophy of education of a school should be the product of the common understandings of all of the professional personnel of the school arrived at by a rigorous application of the method of intelligence, rather than the expression of the administrative staff, or of a few people chosen by it. Only in this way can it vitally affect the life of the school and with consistency reflect the ideals of our democratic society.

6. **COMMUNITY PARTICIPATION.** If the philosophy of the school is to give full cognizance to the importance of the community in relation to the purposes of the school, the community resources, material and personal, should be utilized as fully as possible in the development of that philosophy. This calls for a studied plan adapted to the peculiar demands of the local situation.

7. **STUDENT PARTICIPATION.** The students of the school also, in terms of the maturity level at which they are capable of contributing effectively, should be utilized at various stages of the development of the philosophy. The precise nature of this participation should be determined in the light of the local situation.

8. **IMPLICATIONS FOR THE LIFE OF SCHOOL AND COMMUNITY.** In order that the school may function with maximum effectiveness, a consistent philosophy of education must be formulated and practiced. To eliminate the possibility of the school's work in different areas being carried on at cross purposes, the implications of the philosophy of education for the total life of the school should be clearly indicated; e.g., administration, buildings, equipment, books, curriculum and procedures, teacher-student relations, guidance, outcomes and their evaluation, articulation of various school units; and community attitudes and relationships, such as social and religious institutions and standards, economic practices, recreational programs.

Having agreed upon the general scope and structure of the philosophy, the group should proceed to an examination of pertinent literature,⁸ a study of the local community, and the student population. The tentative statement should be submitted to appropriate community groups for study and criticism, and finally to the entire faculty. In the light of such study and criticism, revisions should be made. The final statement should be adopted by the faculty as a guide to further work on the curriculum problem.

⁸ See Chap. II for reference materials, issues, and points of view.

STUDYING THE ADOLESCENT. Regardless of the plan which the faculty adopts for reorganizing the curriculum, it is desirable that a systematic, continuous program directed toward a better understanding of the student be instituted. In Chapter III, a survey was made of some of the more important procedures that are available to a school that desires to base its program upon the needs, problems, and interests of adolescents. At this point, therefore, it is necessary only to highlight some of the steps which a school might take.

1. **STUDYING THE LITERATURE.**⁴ A number of significant national studies have been made which reveal some significant trends in adolescent development. These should be used as the basis of a local survey.

2. **STUDYING THE STUDENTS OF THE SCHOOL.** Utilizing the findings of other studies as a background, the staff may plan a study of the student population. This may be done by the use of interest inventories, problem checklists, questionnaires, case studies, and informal school contacts. Such a study should be broadly conceived in terms of the major problems which the student faces in his immediate and wide social environment.

3. **FORMULATING A STATEMENT OF BASIC NEEDS, PROBLEMS, AND INTERESTS.**⁵ Out of the studies suggested above should come a statement of the major concerns of students at various developmental levels. A committee, working with the faculty as a whole, might be charged with the responsibility of bringing together the data and submitting to the faculty a tentative draft of a statement which would be subject to continuous revision and elaboration. Such a statement has significant values for guidance and curriculum development.

⁴ See Bibliography, Chap. III.

⁵ For a comprehensive study of this nature see: *How Children Develop*, by the faculty of The Ohio State University School. Columbus, The Ohio State University, 1946.

4. IMPROVING THE SYSTEM OF RECORDING PERSONNEL DATA.⁶

Studies such as suggested above are bound to yield data concerning students that are not usually available in schools because of the conventional record system which usually is limited to a few facts about the health of the student, his family background, his attendance record, and his school marks. A cumulative folder or packet system which would provide for the recording of significant data concerning problems, needs, and interests, as well as anecdotal and test records of behavior, should be instituted, and be made available and easily accessible to all teachers.

Even though a school does not plan to make fundamental changes in its curriculum, the two steps described above, developing a philosophy and studying the student, would prove valuable, for such a program would be bound to promote better understanding on the part of the teaching staff, better teacher-student relations, and curriculum improvement within the existing pattern.

REORGANIZING LEARNING ACTIVITIES. The basic philosophy developed by the school and the survey of the needs, problems, and interests of the students should have important implications for the plan of curriculum reorganization which is finally adopted. Proposed plans need to be scrutinized in terms of their promise for carrying out the avowed purposes of the school.

IMPROVING SUBJECTS. Even if circumstances do not warrant a systematic attack on the curriculum problem, the teaching staff of any subject or area may find many ways of improving their offerings without any change in basic structure.⁷ This type of curriculum reorganization which includes securing better textbooks and better supplementary materials, giving more

⁶ For valuable suggestions for the reorganization of recording systems, see: Ralph Tyler and Eugene Smith, *Appraising and Recording Student Progress*, New York, Harper and Brothers, 1942, Part II.

⁷ See Chapter IV for suggestions for improving the subject-centered curriculum.

attention to differentiated assignments to provide for individual differences, providing more opportunities for direct experience, improving technique of long-range planning, and bringing evaluation procedures into line with the values which the school holds to be significant, should be continuous. Under an administration that facilitates such continuous curriculum activity by providing the necessary resources in leadership, time, and materials, much good may be accomplished.

MAKING BASIC CHANGES IN CURRICULUM STRUCTURE. Assuming that a faculty is ready to undertake a more fundamental program of curriculum improvement, certain factors must be considered if the venture is to be successful. A number of these will be enumerated.

1. THE PROGRAM SHOULD BE DEMOCRATICALLY PLANNED. Some plans fail because most of the planning is done by the administration. The principal decides that he wants to make changes and proceeds to appoint committees and assign functions without much consultation with the faculty. Such autocratic planning bogs down, usually before the program gets underway. On the other hand, if the principal has followed the plan of studying the program cooperatively and the staff has actually discovered weaknesses which need to be overcome, the chances of success are much better. The plans for curriculum study then originate with the faculty as a whole, and teachers are much more likely to assume responsibility.

2. ADEQUATE RESOURCES SHOULD BE PROVIDED. One of the most important of these resources is good leadership. This should come from the school in most cases. Consultants from other institutions may give valuable assistance, but the continuous day-to-day leadership should be provided for within the school. In small schools, a capable teacher, or the principal, should be designated as curriculum director or coordinator. In large schools, the regularly appointed curriculum director should, of course,

provide the leadership. Adequate finances should be provided for the release of key personnel for all or part-time, for the purchase of books, pamphlets, courses of study, and the like, and for consultant and secretarial service. Sufficient building space should be provided for a laboratory workshop which would serve as headquarters for the project, and a place conducive to work.

3. ALL TEACHERS SHOULD BE INVOLVED. Not all teachers are equally intelligent, equally interested, or equally capable. But all can contribute something of value. The principal who does not utilize the curriculum reorganization program as a means of promoting in-service growth is overlooking one of his best opportunities. But even more important is the fact that the participation of all in a common enterprise is the best way of underwriting the success of the venture. Otherwise, there is constant danger of "sabotage" from individuals and groups that are not identified with the program, and as a consequence do not understand the significance of the work that is being done.

4. COMMUNITY GROUPS AND STUDENTS SHOULD PARTICIPATE. In a final analysis the staff of the school, with the approval of the board of education, of course, is responsible for determining the curriculum, but this does not preclude the use of community and student groups for making suggestions, for assisting in gathering data, and for studying the ways in which the school may more effectively utilize the community as a laboratory. The level and extent of participation will have to be determined by the local situation.

5. THE BASIC ISSUES SHOULD BE STUDIED BY THE STAFF AS A WHOLE. There will be many activities that may be delegated to a central curriculum committee, but the basic issues involving the over-all structure of the curriculum need to be studied by the entire staff. These issues would need to be formulated by the group, but the following would probably be included:

- a). To what extent should the subject-centered organization be modified? ⁸
- b). Should the curriculum be organized in terms of "social functions" or "adolescent needs," or some modified plan? ⁹
- c). Should a program of common learnings (core) be set up? ¹⁰
- d). Should the "activities program" be made an integral part of the curriculum?
- e). What should be the relationship between the guidance and curriculum organization? ¹¹
- f). What special-interest areas should the school provide for the purpose of meeting the vocational, intellectual, and recreational interests and needs of students?
- g). How much pre-planning should be done, and how should this be accomplished? ¹²
- h). How shall the new program be staffed?

Not all of these issues can be settled until the project is well underway, but they need to be studied and decisions made as sufficient data for solutions become available.

ORGANIZING THE STAFF. The nature and extent of the curriculum-reorganization project will determine the most effective staff organization. In most cases a central coordinating or steering committee will be needed that will have charge of the program as a whole, and to which other committees will report. The curriculum director should work intimately with this group. Other possible committees, depending upon the type of organization decided upon, might include the following: Common Learnings, Physical and Mental Health, Guidance, Art, Mathe-

⁸ See Chapters IV and V, for discussions of this problem.

⁹ See Chapter VII which presents the different procedures for curriculum development.

¹⁰ See Chapter VI dealing with the evolution of the core curriculum.

¹¹ See Chapter XIII which indicates how the guidance program is related to the curriculum.

¹² See Chapters X and XI which discuss the techniques of developing resource units.

matics, Science, Language Arts, Social Science, Student Activities, and Evaluation. These committees would, of course, make periodic reports to the faculty as a whole for the purpose of securing suggestions for revision.

PUTTING THE NEW CURRICULUM INTO OPERATION.

Obviously, the curriculum of the school, interpreted as all of the learning activities which the school fosters for the purpose of achieving its goals, is a living dynamic process which cannot ever be regarded as a finished product. Changes need to be made gradually and thoroughly tested in terms of their effectiveness in promoting more effective learning. Thus, the "new curriculum" is not something that is "installed" completely at a given time, but rather is put into effect as decisions are made and as conditions as to staff and resources can be worked out. For example, if a core curriculum were decided upon, it might be tried out in one or two grades and then gradually extended to the entire school as tested experience justifies such extension. In other words, "the old house has to be used, while the new one is being constructed."

A FINAL WORD

The foregoing discussion has presented a tentative program by means of which a school may reconstruct its basic purposes and its curriculum. The proposal breaks sharply with traditional practices in the high school, which tend to ignore the problem of unity of purpose, and to assume that the teacher's principal job is to impart knowledge and develop the skills which are determined largely by the adopted textbook. Should schools undertake the difficult task of changing traditional practices and transforming themselves into laboratories for the study of the problems which beset youth in our confused society, and for designing an educational program which adequately meets their needs? This volume is a plea that this should be done. If the high school is to become one of the dynamic agencies by means of which our democratic society reconstructs itself, it must be

done. That it can be done is evidenced by the growing number of schools that have been successful in working democratically on the problem.

Such living and working together under the guidance of a democratic philosophy of education should have a three-fold effect. First, it should be the means of making the school an integral part of the life of the community, instead of an institution apart from the vital currents of living. Second, it should transform the school into a place where students come to get help in the solving of their problems, instead of a place where "lessons" are learned. Third, it should raise teaching to the level of a profession with unlimited possibilities for personal growth, instead of a more or less temporary job to be carried out with little or no personal initiative or imagination.

Clearly, the high school has a distinctive role to play in the perpetuation and refinement of our democratic way of life. It has an excellent chance of success if it dedicates itself to this high purpose and proceeds intelligently and courageously to the task of reorganizing itself to meet the challenge of the times.

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